University of Alberta

Informal Learning in an Online Community of Practice

by

Elizabeth Louise Gray ©

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DEDICATION

This work is dedicated to the three wonderful men in my life – my two sons, Neal and Scott, for their ongoing encouragement and patient discussions of technology from their generation's perspective, and especially to my husband and best friend, Del, for always being there to support me throughout all the stages of my journey.

ABSTRACT

The purpose of this study was to assess the extent to which participants' experiences in an informal online environment constituted a community of practice. The study sought to understand the motivations and deterrents to participation, participants' conceptualizations of their online experience, and the role the moderator played in this online environment.

This interpretive study utilized a multi-method approach based upon practices and assumptions of qualitative inquiry. Participants included 43 coordinators of Alberta Community Adult Learning Councils and the manager of the Community Programs Branch of Alberta Learning, all of whom participated in a moderated online community for a one year period from May, 2000 to April, 2001. Data collection sources included a review of online postings, a survey of participants, and individual interviews. The data were analyzed using an inductive thematic approach.

The research findings indicate that participation in the online environment did constitute a community of practice that facilitated meaningful informal learning situated within a distributed work context. Newcomers were oriented into the skills and culture of the practice, and experienced practitioners gained new insights into their own professional identities and the meaning of their work. Telling of stories helped to develop not only identity as individual practitioners, but also served to continually reconstruct the identity of the collective community of coordinators. Even peripheral "lurking," where participants read but did not actively contribute to online discussions, was a legitimate form of learning and participation. Motivations to participate included the opportunity to learn new skills and work practices, a means of social and professional connection to colleagues, and an opportunity to decrease the isolation that was inherent in the job function and geographical location. Deterrents to participation included a lack of time, technical limitations of slow Internet connections and older computers, and individual perceptions of limited experiences or information to contribute. Participants conceptualized the online environment as an integrated space that represented a tool for work, a place for learning, and a social community. The findings suggest that an online moderator was helpful in sustaining the online community over an extended period of time and enhancing the learning function.

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CHAPTER 1: INTRODUCTION

Background to the Research

In recent years adult educators have become increasingly aware of the potential of new technologies to enable new models of learning as well as to support and extend existing learning structures. The capacity of the Internet to transcend the two most frequently expressed barriers to participating in adult education – time and place (Cross, 1981) – holds great promise, and new communication technologies and learning delivery systems are opening up new "spaces" and possibilities for both formal and informal learning. Formal educational providers, particularly post-secondary institutions, are putting courses online in increasing numbers. Other organizations, such as businesses, labour unions, professional associations, community-based agencies, and human services organizations, are beginning to experiment with using computer-mediated communication to engage their employees and members in both structured and unstructured learning opportunities. Whether used alone or in combination, informational websites, electronic mailing lists, and online discussion groups are increasingly blurring the traditional distinctions between formal and informal contexts for learning and are shifting our conceptions of what constitutes a learning event, where learning takes place, and the relationships and interactions between learners, instructors, and content.

While the vision exists for new technologies to herald a new dawn of lifelong learning that breaks free of traditional conceptualizations and limitations, much of the planning and investment by governments, educational providers, and businesses has coalesced around the issue of accessibility. The government of Alberta's Supernet initiative, which aims to provide high-speed network connectivity and Internet access to all universities, school boards, libraries, hospitals, provincial government buildings and regional health authorities throughout the province, states that

> the entire premise of the strategy, and its objectives, revolve around enabling better access to leading edge technologies and the Internet, and creating an education environment and culture of technology use for education, economic development and enhancing quality of life for all Albertans. (Alberta Innovation and Science, 2000, para 5)

Adult educators know, however, that this "if we build it, they will come" assumption that access will guarantee participation is problematic when applied to an informal learning context. Access to the technology itself is a necessary but not sufficient condition for participation; technology can only facilitate a lifelong learning environment but cannot produce it. Learners may be able to access powerful new technologies in their workplaces and in their homes, but this access is inextricably embedded within social contexts, cultures, and circumstances which impact participation.

Formal educational providers have been able to set up distance education courses knowing that the adults who enroll in those courses have their invested tuition and attainment of course credit as powerful motivators for participation. These providers, while having to make adjustments from the face-to-face classroom world to the virtual learning space, nevertheless are able to operate within established conceptual frameworks of teaching and learning with familiar attributes of courses, curriculum, evaluation, and a teacher-learner relationship. Formal online learning also can draw upon an established literature and research base to guide understanding and shape best practice (Berge & Collins, 1996; Burge & Roberts, 1998; Garrison, 1993: Harasim, 1990; Harasim, Hiltz, Teles, & Turoff, 1995; Haughey & Anderson, 1998; Jonassen, 1995; Kearsley, 2000; Palloff & Pratt, 1999). Increasingly, however, businesses and organizations are also investing in electronic networks and computer-mediated communication systems with the anticipation of creating online communities of practice for shared workplace learning and ongoing professional development. We know much less about this brave new world of informal online learning, and while some of these online learning communities thrive, many fail to live up to the "great expectations" of their sponsors or providers. What is not clear is an understanding of what function these online communities can serve within an organization and what factors influence learning and participation in these voluntary contexts.

It is important that we increase our understanding in these areas in order to tap the potential of both the amount of time adults spend in informal learning and their increased access to technology. Livingstone (1998) reports that the average number of hours devoted to informal learning activities by Canadian adults is 15 hours a week, with about 6 of those hours involved in informal learning related to their current or prospective future employment. This is vastly more time than Canadian adults spend in organized formal education courses (approximately 4 hours per week for the entire population), and consequently Livingstone refers to the "iceberg of adult learning" (p. 10), with an iceberg being approximately 90% invisible and adult learning approximately 80% informal. Other studies indicate that 83% of adults' learning is informal (Marsick & Watkins, 1990, p. 7). Informal learning, therefore, is clearly an important area of study.

Just as adults are mainly involved in informal learning, they are also increasingly logging on to the Internet at home and at work. Dickinson and Ellison (2000) report that 41.8% of Canadian households regularly used the Internet in 1999, an increase from 35.9% in 1998. At work, 59% of Canadian public sector employees have access to the Internet, with 66.7% having access to e-mail (Bakker, 2000). Employees in the private sector lag behind their public sector counterparts in terms of access to information and communications technologies, but still 28.4% of private sector employees have access to the Internet and 34.4% have access to e-mail. As more and more Canadians use their home and work access to online technologies to engage in the "iceberg" of informal learning activities, and as more and more organizations begin to use these technologies for workplace and community learning, we need to increase our understanding of adults' experiences in online learning contexts that are outside the formal distance education arena.

Purpose of the Study and Research Question

The purpose of this study was to understand participants' experiences in an informal online learning environment and to assess the extent to which their experiences constituted a community of practice.

The main research question in this study asked: To what extent did participants' experiences in an informal online environment constitute a community of practice?

Supporting research questions were:

1. What were the major motivations and deterrents to participation?
2. How did participants conceptualize their online experiences? What did their online experiences represent to them?
3. What was the role of the moderator in this online experience?

The research took the form of an interpretive study that utilized a multi-method approach based upon practices and assumptions of qualitative inquiry. Data collection sources included a review of online postings, a survey of participants, and individual interviews. The data were analyzed using an inductive approach (Patton, 1990), letting themes emerge from the participants' experiences. These emergent themes were then collapsed into second-order themes and examined in relation to the existing literature to determine to what extent participants' experiences in the online environment constituted a community of practice.

Theoretical Framework

This study was grounded in the theoretical framework of communities of practice (Lave & Wenger, 1991; Wenger, 1998, 2001). A community of practice is defined as "a group of people who share an interest in a domain of human endeavor and engage in a process of collective learning that creates bonds between them" (Wenger, 2001, p. 1). Communities of practice are self-organizing systems of informal learning, and they differ from other communities in three main ways. First, they focus on a domain of shared interest, and membership implies a level of competence and knowledge of that domain which distinguishes members from other people. Second, they interact and learn together by engaging in joint activities and discussions, helping each other, and sharing information. Through these interactions, they build relationships and form a community around the domain. Third, they develop a shared collection of experiences, stories, best practices, and ways of solving problems. This shared repertoire of stories and case studies becomes a common knowledge base upon which they can draw when facing new situations. Whether it is a group of high school drama teachers or a community quilting group, a community of practice consists of people with a shared domain of expertise who voluntarily learn together about practices that matter to them. Shared learning and interest are what keeps these communities together - they cannot be mandated into existence and they only exist as long as participation has value to their members.

This theoretical framework proposes that it is within these communities of practice that people learn the intricacies of their job, explore the meaning of their work, construct an image of the organization, and develop a sense of professional self. Communities of practice are an organizing principle, not a pedagogical approach, and they address not only the technical acquisition of skills required by a specific practice, but also the informal and social aspects of creating and sharing knowledge. Within a community of practice, individuals learn to function and become enculturated into that community's practices, language, viewpoints, and behaviors. This situated learning within the context of everyday activities makes a closer connection between learning and doing, and moves away from the concept of learning as primarily a cognitive function of knowledge acquisition. Learning is a social construction (Davis, Sumara, & Luce, 2000; Fosnot, 1996), not a personal construction.

We all belong to several communities of practice at home, at work, or in our hobbies. Participation in these communities may overlap, and is shaped by contextual and social factors. Communities of practice have multiple levels and types of participation, and the interplay between experienced members and newcomers is an important dimension of passing on knowledge as well as facilitating the creation of new knowledge and insight. At any one time Wenger suggests we may be central participants in one community of practice but peripheral participants in another, and throughout time we can move back and forth between the core and the periphery. All participation, even at the periphery, is considered legitimate learning, and it is through participation that we learn not only "how to do" but "how to be." The influence of the group supports or negates the self-in-training, i.e. identity (who) one is and how one is to act.

The original concept of communities of practice addressed learning that took place in face-to-face situations such as apprenticeships of Mayan midwives in Mexico, work-learning settings of United States navy quartermasters, and among non-drinking alcoholics in Alcoholics Anonymous (Lave & Wenger, 1991). Within the last decade, businesses, particularly those who believe that the knowledge of employees is their key asset, have applied the concept as a new approach to capturing and nurturing the dynamic knowledge that exists within organizations. More recently, Wenger (2001) has begun to examine how technological platforms might support communities of practice given the increasing geographic distribution of employees, the global nature of work, and the reliance on some kind of technology for communicating. He suggests that despite organizations' search for the perfect technical solution, technological features have less to do with the creation of a successful community of practice than do social, cultural, and organizational issues (Wenger, 2001, p. 45).

Using Wenger's concept as a framework, it is my argument that organizations can facilitate and enhance informal learning by providing opportunities for the development of online communities of practice. I hope to show that, despite the informal structure and online nature of these interactions, such online communities of practice can provide significant learning within a social framework. The online environment can provide a space for newcomers to become enculturated and learn elements of the practice, and where all members, through sharing of stories and joint problem-solving, can learn together and continue to shape not only their own identity as practitioners but the identity of the practice itself.

Scope and Limitations

This study was limited to a particular online environment over a one-year period. This online community was established by a provincial association – the Community Learning Network – as a service to facilitate communication, problem-solving, and sharing of best practice among its members, the coordinators of Alberta's 84 Community Adult Learning Councils. The majority of these coordinators were women who worked part-time in small towns and rural communities throughout Alberta where their job involved coordinating non-credit adult learning programs at the community level. As such, the setting for learning was a distributed informal online context with a workplace orientation.

This was a "closed" password-protected online community whose members shared a common occupation although they worked for different employers and were widely separated geographically. The online environment incorporated a variety of WebCT computer-mediated conferencing tools including a website, asynchronous discussion forums, private mail, live chat, and electronic document and calendar sharing. Participation required individuals to actively "go" to the online site as opposed to many online communities that utilize electronic mailing lists to "push" information via e-mail.

This online community used the services of a moderator which is also not a common practice. The fact that I served as moderator and then as researcher also could be considered a limitation. My participation as moderator of necessity reduced my distance as a researcher, but qualitative inquiry rejects the "false stability inherent in the idea of objectivity" (Heshusius, 2000) and rejects the epistemological stance that distancing is equivalent with the act of knowing. Indeed, since part of my research goal was to understand the experiences of participants in this online environment, then my own experiences as moderator needed to be included and my participatory knowing was of essence embedded in that which I sought to understand. The assumptions I brought to this dual role and the strategies that I used to strengthen the credibility of this research position are described in the methodology section in Chapter 3.

The study was limited to the experiences of those coordinators who chose to participate in the online community – no attempt was made to contact those coordinators who never logged on. And finally, the study involved only female participants – not by design but simply due to the fact that 96% of Alberta's Community Adult Learning Council coordinators are female. While there are many online groups or communities, two unique features in my study - the use of an online moderator and the female composition of the group - will serve to advance our understanding of how these particular factors impact an online community of practice.

For the purposes of this study, I will be making a distinction between formal and informal learning. As adult education expanded in the 1970s, distinctions were identified between formal, non-formal, and informal learning that primarily referred to the context or setting in which learning occurred. Formal learning referred to learning that took place within educational institutions that provided a form of systematic, hierarchical education. Examples would include schooling in the K-12 sector, and courses and programs at post-secondary institutions. Non-formal learning occurred outside the formal education system, but was nevertheless an organized event with specific target groups or clients and learning objectives. Examples would include first-aid programs offered by non-profit organizations such as St. John's Ambulance, or cultural programs offered by museums or art galleries. Informal learning referred to the individual acquisition of skills, knowledge, and attitudes from everyday experience and from one's own environment.

New technologies are increasingly blurring these distinctions of context. In this study, I believe that we need only distinguish between *formal learning* – that which takes place within an organized program sponsored by a formal educational institution – and *informal learning* – that which occurs outside of such an institutional context. When I refer to *formal online learning*, I am primarily referring to organized courses of study offered via the Internet, usually sponsored by a post-secondary institution. When I refer to *informal online learning* I am referring to other computer-mediated learning that takes place outside such formally organized instruction but is restricted to a particular group of people.

A second clarification of terms integral to this study concerns the terminology of *community of practice*. Because I am using Wenger's theoretical framework, a community of practice refers to a specific type of community, one that produces a shared practice as members engage in a collective process of learning. An online community of practice, just like its face-to-face counterpart, is more than a set of relationships or a community of interest, but involves a joint enterprise with a shared repertoire of resources and practices that members have evolved and renegotiated over time. The actual practice may be a type of work, a craft, or a hobby, but within an online community of practice members develop among themselves their own understanding of what their practice is about and their identity as practitioners.

These details of scope are provided to give the reader an understanding of the context, limitations, and definitions of the study. I hope to describe the experiences of participants, including those of myself as moderator, in sufficient "thick description" (Geertz, 1973) so that readers can determine the possibility of using online informal networks for improving practice. It is my intention to provide information that can be useful in helping organizations and individuals to conceptualize and create effective and satisfying online communities of practice that provide a meaningful context for informal learning.

Significance of the Study

This study will contribute to our understanding of how adults experience an online community of practice – what draws them, what deters them, what sustains them, and what meaning they make of their experience. This understanding will help to illustrate existing theory on communities of practice and to extend theory by illuminating characteristics not evident in current literature. Online networks provide a new and alternative form for informal learning, and we need to know more about how to support geographically distributed communities of practice. This study will provide us with ways of thinking about online learning outside of formal education, away from the concepts of courses and curriculum towards the concepts of community and participation. It will also be of practical benefit to non-institutional educational providers in helping them to establish realistic expectations for online learning communities and where their potential might be best utilized. As Thorpe (1999) points out, the majority of development work and evaluation of using online tools has been done in higher education so that we have little evidence for how to use the technology effectively outside this context.

Structure of the Dissertation

Chapter 1 introduces the research by situating it within the background context of communities of practice and the possibility of using online technologies for informal adult learning. It provides an overview of the theoretical framework, the purpose of the study, the main and supporting research questions, the rationale and significance of the research, and the scope and limitations. Chapter 2 provides a review of literature pertinent to the research study, with particular focus upon adult learning theory, communities of practice as a context for adult learning, and learning in online environments. Chapter 3 describes the qualitative methodology used in the research. Chapters 4 and 5 present the findings of the research, with Chapter 4 describing the experiences of participants and Chapter 5 describing how participants conceptualized the online environment and what it represented to them. Chapter 6 discusses the findings by viewing the emergent themes through the lens of a community of practice to determine which characteristics illustrate existing theory and identify further characteristics not included in present literature. In Chapter 6, I also weave my own story as moderator within this community of practice as part of my attempts to understand the meaning and function of that role. Chapter 6 concludes with a summary of the research as well as implications for practice and further research related to the use of online communities of practice to support informal learning.

CHAPTER 2: LITERATURE REVIEW

A review of related literature helps to identify the scope and type of research that has been done previously to provide a context for the inquiry of my study. Three bodies of literature help to inform our understanding of how adults may experience online environments as a venue for learning outside of formal educational contexts. The first is the literature on adult learning theory that includes characteristics of adult learners, motivations for participating in adult learning, and the importance of context in the learning process. The second is the literature on communities of practice, which explores how these communities constitute a specific context for learning in everyday social practice. The third is the literature surrounding online learning itself and the development of online communities. This review will summarize the relevant research in these three areas, show the relationships between them, and explore their significance to my own study.

Adult Learning

Before considering the opportunities and challenges that new technologies bring to the adult learning landscape, it is helpful first to review adult learning theories in general as well as information about informal adult learning outside formal educational experiences. As Caffarella and Merriam (1999) point out, most of the research on adult learning has been framed by two major perspectives: the individual and the contextual. Both of these perspectives bring their own underlying assumptions about how adults learn, what motivates them to participate in adult learning, and how learning experiences should best be structured to align with these beliefs and understandings.

Earlier research on adult learning primarily focused on the individual perspective, which was shaped by the psychological paradigm. These primarily cognitive theories emphasized "individual thinkers and their isolated minds" (Barab and Duffy, 2000, p. 33). A key assumption underlying the individual perspective was that learning happens internally in our heads with our external environment having little effect. With this assumption as a basis, it made sense to think that we could develop a set of principles and competencies that could help all adults become effective learners regardless of their age, gender, race, economic situation, background, or life circumstance.

This individual perspective has shaped much of how we thought about adult learning and subsequently how we planned programs and learning situations. Knowles' (1970) theory of andragogy is still strongly influential in how we characterize adult learners – that they are internally motivated individuals who approach learning as problem-solving, who learn best when the topic is of immediate value to their job or personal life, who prefer to learn experientially, and who bring a rich background of life experience to the learning situation. Erikson's (1950) theory of development stages and Tough's (1971) research on the self-directed nature of informal learning both portray linear processes through which adults progress in a predictable step-by-step sequence. Tough's interpretation of self-directed learning seems to be situated within a formal or institutional paradigm when he suggest that adults consciously identify their own learning needs, determine subsequent strategies, and decide upon evaluation mechanisms. Boshier's (1995) studies on participation are also based on descriptive information of characteristics of individual learners who were involved in adult learning programs. He proposed that several factors influence such participation, including the expectation of others, personal educational background, a desire for professional advancement, social stimulation, and cognitive interest. All of these contributions to adult learning theory stem from an individual perspective that views learning as something that happens primarily inside one's head.

Cross' (1981) Characteristics of Adult Learners (CAL) model attempts to bridge the individual and contextual research perspectives. She identifies two classes of variables that influence adult learners – personal characteristics such as age, life phases, and developmental stages, and situational characteristics such as part-time vs. full-time learning or voluntary vs. mandatory learning. The CAL construct also classifies inhibitors or barriers to participation as dispositional, situational, and/or institutional. Dispositional barriers include individual attitudes and beliefs; situational barriers include external influences beyond a learner's control; and institutional barriers are those practices and procedures that inhibit adults from participating. To relate these concepts to my study, a dispositional barrier might be an individual's distrust of technology as a potential invasion of privacy. A situational barrier might include living in a rural area where limited bandwidth via a slow dial-up Internet connection is the only option, and an institutional barrier might be working in an office where Internet access is restricted to certain workstations which necessitates that an employee must leave her usual work area to go online. While Cross still believed that the psychological aspects of her framework were the most important, her CAL model began to bring in the realm of context as a significant factor in understanding adult learning.

Social Constructivism and Situativity

While these earlier models of adult learning are rooted in a psychological orientation to learning that focuses on individual and internal mental processes, more recently research on adult learning has focused on the contextual perspective. This social constructivist perspective acknowledges the interactive nature of learning as well as how structural factors affect the learning process. In this view, learning cannot be separated from the context in which it takes place. Indeed, context is not just one of many elements that may be considered but rather is an integral element that influences what is learned and how it is learned. Context is not just important but instead is central. Barab and Duffy (2000) group these theories that emphasize the social nature of cognition and meaning under the heading of situativity learning theories. This situativity perspective with its associated assumptions and underlying principles is of particular importance to my study in how it shapes my understanding of how adults learn in both formal and non-formal contexts.

Situativity theory rejects the assumption that knowledge is a self-sufficient substance that exists independently of the situations in which it is learned and used. Situativity theorists believe that knowledge cannot be abstracted, decontextualized, or transferred from the context in which it is learned; instead it is fundamentally situated in the activity, context, and culture in which it is developed and used. Advocates of situativity learning theory (Brown, Collins, and Duguid, 1989; Lave, 1988; Wilson, 1993) believe that learning and thinking are social activities, that thinking is influenced by interaction with the setting, and that it is the contextual elements that give meaning to anything that is learned. We cannot separate knowing and doing; adults cannot learn something in the abstract, store up that information, and then transfer that knowledge seamlessly to a new setting. Learning and thinking must take place in authentic activities, since interacting with the context itself is an integral part of the learning. Situativity theory views learning as a social experience and, as such, has links to Vygotsky's social development theory (1978) and Bandura's social learning theory (1977).

Davis, Sumara, and Luce-Kapler (2000) include situativity theories in their discussion of complex learning theories. In complex learning theories, learning is not viewed as acquiring or accumulating information, but rather is seen as participation in a process of adapting one's actions to ever-changing circumstances. Cognition is seen as a complex process of co-evolution where individuals, social groups, and societies adapt to and affect one another in a "complex choreography" (Davis, Sumara, & Luce-Kapler, 2000, p. 73). These authors argue that "phenomena such as personal cognition and collective knowledge are tightly interrelated" (p. 73). This social constructionist perspective suggests that collectives of persons are capable of understandings and actions that transcend the capabilities of the individuals on their own. When learners share their constructions, communities or collective entities emerge that are defined by joint interests and shared understandings and assumptions.

This perspective is an underpinning of Wenger's community of practice framework that will be discussed in more detail later in this chapter.

Fosnot (1996) explores the role of representation in understanding and negotiating meaning of experiences. She argues that, while we cannot understand another's different experiences in exactly the same way, through representations such as language, stories, and metaphors, we can "listen to and probe one another's understanding, thereby negotiating "taken-as-shared" meanings" (Fosnot, 1996, p. 27). Representing experiences allows the creation of shared spaces where we can negotiate meaning. As ideas are shared within a community, new insights and possibilities are suggested to individuals who then interpret and develop new constructions. From this perspective,

> learning is a constructive building process of meaning-making that results in reflective abstractions, producing symbols within a medium. These symbols then become part of the individual's repertoire of assimilatory schemes, which in turn are used when perceiving and further conceiving. (Fosnot, 1996, p. 27)

Dialogue with a community engenders further thinking. As members of a community discuss connections across experiences, they struggle with making meaning of those experiences that often requires the undoing or reorganizing of previous constructions.

The key principles of situativity theory align well with generally accepted characteristics of adult learners that I identified previously. Adults are motivated to learn when the knowledge is directly relevant to their job or personal life; they approach learning as problem-solving; they want to bring their real-world experience to the learning process; they want to learn in authentic contexts. The concepts of cognitive apprenticeships (Brown et al., 1989) and practice fields (Senge, 1994) could apply to many adult learning situations. Such apprenticeships play out within a social framework where the meaning and purpose of activities are socially constructed as ordinary practices of the culture. In the situated view, cognition exists in relations among people rather than in the minds of individuals, and learning and knowing are structured by people interacting and problem-solving. Thinking is influenced by interacting with the setting.

Women As Learners

Since all of the participants in my study were women, it is important to review the literature that informs our understanding of women as learners. It is beyond the scope of this review to discuss feminist theories in detail, and it is not the intention of this interpretive study to take a feminist critical stance of women's experience in this online environment. However, Tisdell (1995, 2000) describes three broad frameworks that outline similarities and shifts among different feminist perspectives that are helpful as background context. While these frameworks make distinctions that do not fully represent the evolving and interrelated nature of these different feminist perspectives, they nevertheless provide a basis for understanding women's individual and collective experiences as learners.

Psychological feminist theorists, according to Tisdell, use such constructs as gender-role socialization to understand differences between women and men. Much of the feminist theory of the 1970s and 1980s is grounded in the gender model which is concerned with those aspects of female identity that come from their roles as mothers and nurturers. Chodorow (1978) points out differences in male and female development in terms of connectedness to the world:

> Growing girls come to define and experience themselves as continuous with others; their experience of self contains more flexible or permeable ego boundaries. Boys come to define themselves as more separate and distinct, with a greater sense of rigid ego boundaries and differentiation. The basic feminine sense of self is connected to the world, the basic masculine sense of self is
> Separate. Thus, relational abilities and preoccupations have been extended in women's development and curtailed in men's. (p. 169)

Gilligan (1982) theorized that women construct their view of the world around a concern for connection, relationship, and responsibility towards others, which is different from a masculine orientation towards autonomy, achievement, and justice. Martin refers to "trait genderization" (1984), which represents the practice in all cultures of associating certain traits with "masculine" and other traits with "feminine" genders. Noddings (1984) attributes the "ethic of care" to women's gendered role as caregivers and nurturers. Belenky, Clinchy, Golberger, and Tarule (1986) argue in their landmark work *Women's Ways of Knowing* that women prefer to learn in connected, cooperative, and holistic ways, and they appreciate subjective ways of knowing where experience, intuition, and emotion are valued as well as rational objectivity. These authors propose that women learn, find their voice, and are moved to action through sharing stories and reflecting on both the stories themselves and the contexts of their experiences.

According to feminist theory grounded in the psychological perspective, women prefer collaborative rather than competitive learning settings, and they view knowledge more as a set of connections than as a set of distinctions. These theories call attention to women's tendency to value learning through interactions and relationships with others, and to value the knowledge that comes from their own and others' personal experiences. Theorists influenced by this psychological feminist framework seek to achieve equality for women within the existing social order without examining the structural barriers or power relations that affect women's learning. They focus instead on the needs of women as individuals. They suggest that educators create "safe" learning environments for women which function more like communities than hierarchies, and where connection and relationship are valued in the learning process. The dominant theme across these theories is that "women both prefer to learn with others and prefer a certain kind of learning relationship with others, one that emphasizes mutual support and caring" (Flannery, 2000, p. 124). This understanding of women as learners differs from traditional theories of andragogy that focus on fulfillment of individual and autonomous goals.

A challenge to this psychological feminist perspective comes from theorists who work within a structural framework. Structural feminist theorists criticize the psychological perspective by asserting that when educators put the focus on creating a safe and nurturing environment for women as learners, they do not put the focus on overtly helping women examine social, political, and structural conditions that affect their lives. By focusing on the needs and experiences of women as individuals, the psychological perspective does not examine the power relations in the larger social structure and what effects these have on education. Structural feminist theorists see the goal as change in social structures rather than change in individuals.

The third framework that Tisdell presents is the poststructural feminist perspective which she acknowledges as an umbrella term for many versions of postmodern and poststructural feminisms. This perspective builds on structural feminist theories because it acknowledges structural systems of privilege and oppression such as class, race, and sexual orientation as well as the significance of gender. However, instead of focusing only on gender or only on social structures, theorists working from the poststructural feminist perspective focus on how the intersection of gender, individual agency, and social structures affect women as learners. Hayes and Flannery (2000) acknowledge that their thinking is most closely aligned with this perspective. They conceptualize gender as "a system of social relations that are continually renegotiated, both at the level of daily interactions and at the level of the broader social structures" (p. 14). They emphasize the sociocultural context of women's lives and seek to understand how women are active agents in shaping their own learning. They view women's learning as "intertwined with who we are, with our conceptions of ourselves, with our multiple identities" (p. 238). The poststructural perspective cautions against superficial acceptance of such concepts as voice and connection in women's learning, and deconstructs these concepts to explore the diversity of women's experience that is a result of the complexity of individual situations and the intersection of multiple social factors.

These three feminist frameworks – psychological, structural, and poststructural – have increased our understanding of adult learning by drawing attention to the different learning needs of women as well as the power relations of the sociocultural context which affect learning. Feminist theories "call attention to the complexities of the learning environment by addressing such issues as the construction of knowledge, the development of student voice, issues of authority, and how to deal with difference" (Tisdell, 1995, p. 80). They add a new dimension to understanding women as learners which is not explored in andragogical models.

This section has reviewed some of the major influences that have shaped my understanding of how adults learn and the influence of context on that learning process. The shift in the last decade represents a movement from "an acquisition to a participation metaphor" (Barab and Duffy, 2000), where knowledge is no longer viewed as a set of cognitive representations to be acquired but instead is considered fundamentally situated within participation in practice. In my study, adults voluntarily participated in an online environment that was designed as an opportunity to improve practice and make connections with their peers. Many contextual influences will converge in how they make sense of their online experience - the geographical isolation of their workplace, their comfort level and previous experiences with technology, their motivation to improve work practices, their need to make social connections, their gendered life experiences, and the relationships that develop in the online community. What this online experience represents to them in terms of either a learning place or a social space will be inextricably interwoven with the many threads of context.

Communities of Practice

Because my study focused on adults who were involved voluntarily in an online environment that was connected to their work rather than on students who were enrolled in a formal course of study, I needed to look at frameworks that advanced my understanding of how adults learn within a workplace context. The theoretical construct of communities of practice (Lave & Wenger, 1991) is grounded in an anthropological perspective that examines how adults learn through everyday social practices rather than focusing on environments that are intentionally designed to support learning. Consequently, this concept aligns with both the nature of my study and the situative perspective on learning that I advocated in the previous section.

While the community of practice framework did not originate in the organizational development field, it resembles Senge's (1990) concept of a learning organization which aims to increase organizational capacity and creativity. As the educational reform movement adapted Senge's concept, the label in educational circles came to be called learning communities (Astuto, Clark, Read, McGree, & Fernandez, 1993). Similar concepts, such as workplace learning teams and action research groups, all aim to create communities with the purpose of improving practice. Sharp (1997), in his review of the literature regarding communities of practice, defines such a community as "a special type of informal network that emerges from a desire to work more effectively or to understand work more deeply among members of a particular specialty or work group" (p. 2). A community of practice displays some common characteristics. These informal groupings are not mandated, formalized, or authorized, but instead emerge of their own accord. Members of a community of practice may come from different backgrounds and organizations, but they share a common set of core issues that binds the group together. Members participate through a desire to share work-related experience and knowledge, and they develop a common sense of purpose. They are drawn together by forces that are both social and professional. Membership is not static; instead there is an ongoing flux of members who enter from the periphery and gain status as knowledgeable members through their participation in the community.

Sharp (1997) points out that communities of practice show many of the same qualities as informal communities. The group itself sets its own goals and determines the "boundaries" for membership, with membership implying a minimum level of knowledge of the practice domain. Personal relationships develop, and there is a sense of mutual commitment to the community. Members may assist each other either because of their established personal relationships or simply because they belong to the same community. However, having the same job or the same title does not necessarily constitute a community of practice unless members interact and learn together. Similar to an informal community, communities of practice also produce collective goods, but the "goods" are usually expanded knowledge, enhanced understanding of the work context, and practical ideas for action. Barab and Duffy (2000) identify three requisite features of a community that also are present in communities of practice - a common cultural and historical heritage with a collective knowledge base, an interdependent system where community members view themselves as part of something larger, and a reproduction cycle where new members are enculturated into the community to eventually replace older members. They argue that if an online environment is to be construed as a community of practice it is important to determine if these features are in evidence. An online community is, of itself, not synonymous with an online community of practice.

Lave and Wenger's work on communities of practice (1991, 1998) proposes that such communities are an essential context for learning. Lave, an anthropologist, and Wenger, a computer scientist, argue that engagement in social practice is the fundamental process by which we learn and become who we are. In this conceptual framework, the primary unit of analysis for learning is neither the individual nor formal institutions, but rather informal communities of practice that form the social fabric for learning. Communities of practice "address the informal and tacit aspects of knowledge creation and sharing, as well as the more explicit aspects" (Wenger, 2001, p. 3). A community of practice represents shared histories of learning, where participants make meaning, sense, and understanding of their work. Through mutual engagement and interrelated forms of participation, members of a community of practice negotiate meaning of their practices and form an identity of who they are. Adults are drawn to communities of practice "not only to engage in pursuing some enterprise but also to figure out how their engagement fits in the broader scheme of things" (Lave & Wenger, 1991, p. 162). Communities of practice provide a place for the negotiation of meaning, the preservation and creation of knowledge, the spreading of information, and the creation of identities.

Within any community of practice, learning involves the important interplay between newcomers and experienced practitioners. Learning is viewed as an apprenticeship model, and the community of practice provides the context in which elders pass on important knowledge to newcomers. Newcomers' motivation stems from their desire to become a full practitioner, whereas the role of the experienced "masters" is to confer legitimacy on the practices under discussion. Learning is done by telling stories to each other and by novices performing ever more central tasks. Through these stories, participants are not only passing on knowledge but are contributing to the construction of their own identity in relationship to the community of practice. Conversations and stories about the elements of practice, particularly problematic and difficult cases, form the basis of learning. However, while the community of practice provides a context for the learning of newcomers, it also provides a context for old-timers whereby new insights can be changed into knowledge. As newcomers come in, opportunities arise for mutual engagement and these new relationships can awaken new interests that translate into renegotiation of meaning of the entire enterprise.

Situative learning theory is central to the conceptual framework of communities of practice. Learning is accomplished within various communities of practice rather than within the minds of individuals. A key contention is that participation in practice constitutes learning and understanding, rather than viewing learning as the individual acquisition of knowledge. The learning process is one of conversation, telling stories, action in trying things, and commenting on each other's solutions. Learning emerges through working or actually practicing one's craft, and knowledge is gained and draws its meaning from the activities of the community. Individuals interact with several communities of practice that provide real-life, authentic contexts for the social production of knowledge and for making sense of the world.

An integral concept of Lave and Wenger's view of situated learning is the term “legitimate peripheral participation” or LPP. LPP is the core process by which newcomers learn how to become part of a community of practice and how they gain an identity. All learning is both *legitimate* and *peripheral*. *Legitimate* participation means that only members of the community can join in the discourse and subsequently learn from and make meaning of the interactions. *Peripheral* participation acknowledges that there is no centre. Lave and Wenger do not use the terminology of *central* participation but rather *fuller* participation. Depending on the learning and practices under scrutiny, participants, both newcomers and more experienced practitioners, are sometimes situated at the periphery and sometimes take on fuller participation. An experienced practitioner may be a full participant in some aspects of the practice, but she may be a peripheral participant if a new practice is introduced into the community (why does learning to use new technologies come to mind?) Often the most transformative learning takes place on the periphery. This concept of peripheral participation, where a learner can stay quietly on the edges without appearing to be actively participating, opens up a new way of thinking about learners in an online environment who “lurk” but do not post. If, in fact, the learning is situated within an authentic context or community of practice, such peripheral participation is indeed legitimate and should not be discounted or ignored.

Using Technology to Support Communities of Practice

It is not surprising that organizations and researchers have been intrigued by the potential of new technologies to create such informal communities of practice or to support or "scale up" existing ones. E-mail, listservs, and electronic bulletin boards provide the capability to share stories and engage in collaborative problem-solving. Much of the recent research in this area focuses on educational contexts. Breazeale (1999) reported that a listserv for educational administrators created a unique culture for professional development with many of the benefits of information sharing and relationships found in face to face conferences, but without the status issues often pervasive in other venues. Gray (1999) researched how a moderated listserv and a real-time online meeting network supported teachers as they implemented an Internet-based curriculum project with students. While fewer than half of the participants communicated online during their project, the listserv benefited both those who sent messages and those who only read them. The online moderator was identified as being essential in helping teachers feel comfortable using the listserv. Online meetings in the real-time environment were found to be highly interactive and conducive to reflective dialogue. Teachers reported that the online communication through both the listserv and the real-time chat brought them in contact with distant peers so they did not feel isolated. Koufman-Frederick (2000) also studied how a collaborative networked environment could enhance the professional development and practice of teachers. In her research, science teachers in an asynchronous online environment felt there were advantages to their participation but that they had too little time to participate and to develop a relationship with the group.

There has been less research done on how technologies can support communities of practice outside educational settings. Isenhour (2000) examined computer-mediated communication in a widespread community of practice, specifically craft brewers. He contended that the online forum not only allowed effective communication between members who were widely separated geographically, but also helped to define the contemporary practice of craft-brewing in the United States. The online forum served as an important vehicle for discussing and disseminating community-based information and resulted in the formation of deep connections between its members. Massoni (2000) concluded that a health-related Internet discussion group functioned as a venue for adult learning. She found that participation patterns in the discussion group varied, with participants sometimes seeking information and other times seeking support depending on different stages of their own illnesses.

In both categories of this research, context is critical. As Wenger states "what makes for a successful community of practice has to do primarily with social, cultural, and organizational issues, and secondarily with technological features" (Wenger, 2001, p. 45). While we can learn from the research on how teachers experience online communities of practice, we must still remember that teachers almost always have other teachers in the same building with whom they can share war stories in the staff room. They also have a generally accepted identity of what it means to be a teacher. We can also learn from online communities of practice that develop around hobbies and health, but this research is not situated in a work-related context. My research examines how people who work in an occupational role that is neither well-defined nor commonly understood *and* who are isolated geographically from each other experience an online community of practice.

Online Communities and Online Learning

So far I have reviewed the literature on the nature of adult learning which has strengthened my appreciation for the importance of context in the learning process. In addition, the conceptual framework of a community of practice makes sense to me as an organizing construct for understanding the experiences of participants in my study. However, since these participants interacted in a community of practice situated within an online environment, it is also necessary to draw upon the current research on online communities and online learning. In this section I will review what we know about developing community in a virtual space, the relationship between computer-mediated conferencing and collaborative learning, types of incidental learning that occur within an online environment, the influence of social context on participants' online experiences, and the role of the moderator in an online environment.

One of the earliest predictions of the new technologies, especially the communication applications afforded by the Internet, was that these technologies would lead to a new culture of discussion and citizen participation. Rheingold's (1993) early experiences in the 1980s with the WELL computer conferencing system promoted the notion of online discussion groups constituting a virtual community for members. He defines virtual communities as "social aggregations that emerge from the Net when enough people carry on those public discussions long enough, with sufficient human feeling, to form webs of personal relationships in cyberspace" (p. 5). "Virtual" or Internet communities exhibited many elements that constituted a physical community or culture, in that groups of people with common interests shared a language, symbols, rituals, interaction, and other elements of communication. A virtual or online community thus became essentially an environment which newcomers entered into and where they began to learn the established norms.

This theory that the communication attributes of new technologies can turn communication into community and that information space can be perceived as social space is supported to varied extents by other researchers. Turkle (1995) theorized that participants in multi-user domains were partially searching for community and personal identity in cyberspace, and that this search was part of an ongoing quest for community in a community-less age. Collins and Berge (1996) reported that members of listservs experienced a sense of community from their reading and participation. Hiltz and Wellman (1997) also asserted that computer-mediated communication could be the basis for people with shared interests to form and sustain relationships and communities. They observed that while these online communities tended to be larger and had more heterogeneous social characteristics than their traditional "offline" counterparts, participants within these communities believed that they could also provide emotional support and sociability as well as information and practical aid. However this support and sociability appeared to require both the right technology to support group communication and an emphasis upon collaborative learning approaches rather than individual learning. This dual importance of supportive technology and pedagogical approach has proven to be a recurrent theme in the literature, and supports my argument about the situated nature of learning as a social construction.

Distance education literature sheds light on this potential of online technologies to foster collaborative learning. Garrison (1993) predicted that computer-mediated conferencing had the potential to change the nature of distance education since students could become interdependent and work together to create mutual understanding. Harasim (1990) identified computer-mediated conferencing as now making possible the social and affective dimensions of face-to-face learning. Jonassen (1995) and Harris (1998) are among several researchers who argue that collaborative learning designs are more effective for online learning than pedagogical approaches that emphasize individuals working alone with information that is posted on a website. This constructivist view of learning, where learners actively construct meaning through interaction with their peers, the instructor, and the content, is generally acknowledged to be conducive to learning with new communication technologies. Group conferencing software such as First Class and WebCT has been developed which will support group collaboration, but such technology can only facilitate the desired behavior, not produce it.

Another school of thought questioned whether this collaborative learning, while it could be a satisfying group experience that was supported by new technologies, necessarily resulted in higher-level knowledge construction. A study by Kanuka and Anderson (1998) revealed that, although computer mediated communication could support an interactive learning environment that reduces time, place, and situational barriers, there was little evidence of the construction of new knowledge. This study assumed, however, that it is possible to measure knowledge construction objectively, whether this is face-to-face or online, and seems vested in the "acquisition of knowledge" metaphor as opposed to the participation metaphor which views participation as a legitimate form of learning in itself. This research also was situated within the formal learning context of distance education where the primary objective was demonstration of new knowledge, whereas the community of practice concept focuses upon the construction of meaning and formation of identity as key components of the interaction.

Incidental Learning Online

A theme in the literature surrounding online learning environments, both in formal and informal situations, is that participants learn incidentally through their interactions. Marsick and Watkins (1986) define incidental learning as:

> A spontaneous action or transaction, the intention of which is task accomplishment, but which serendipitously increases particular knowledge, skill, or understanding. Incidental learning, then, includes such things as learning from mistakes, learning by doing, learning through networking, learning from a series of interpersonal experiments. (p.187)

Incidental learning refers to unplanned learning that may occur when we are involved in planned learning, learning when we did not intend to or predict we would, or learning something different than what we had initially set out to do. Incidental learning often relates to the development of new insights and understandings. It includes things like changes in attitudes and other types of learning that are not easily described in terms of outcomes. In formal education contexts, instructors are primarily focused on assessing whether learners have attained previously established learning objectives, so as Brookfield (1986) states "unplanned, serendipitous learning outcomes are relegated to secondary importance" (p. 217). While incidental learning may be of limited importance to educators involved in formal education, Jones (1982) suggests that the unanticipated consequences of a learning situation are often more important to the learner than the objectives set by the instructor. In an informal online learning context, much of the learning will of necessity be incidental since there is no established formal curriculum and no "instructor" establishing the learning outcomes. This "incidental" learning, from a situated learning perspective, is a legitimate aspect of peripheral participation.

Sproule and Kiseler (1992) point out that there are two levels of effects of online communication technologies, with the first being the anticipated effects and the second being unanticipated or incidental:

> First level effects of communication technologies are anticipated technical ones – the planned efficiency gains or productivity. Second level effects from communication technology come about primarily because new communication technology leads people to pay attention to different things, have contact with different people, and depend on one another differently. (p. 4)

When adults become involved in online environments, either through formal distance education courses or informal membership in electronic mailing lists or discussion groups, they often experience these two "levels" of effects. In their study of women who used VIOLET, an online learning venue for abused women and service providers in shelters, Campbell, Sy, and Anderson (2000) reported that the unanticipated outcomes of the project (or what Sproule and Kiesler would call second level effects) were more interesting and compelling than the anticipated outcomes. While it was anticipated that the women involved would gain an increased awareness of the services and information provided and would increase their technical literacy, it was unanticipated that they would experience increased personal and technical empowerment and that a community of support would develop through their cooperative interaction.

In another study involving an informal learning context, Collins and Berge (1996) also found that much incidental or unanticipated learning occurred with participants who subscribed to online mailing lists. They wanted to find out if participants in such mailing lists considered these electronic discussion groups as a venue for adult learning and whether the participants perceived their online communication as a learning experience. Respondents in their study reported that they learned both incidentally and deliberately, and that group list members derived many benefits from their experience including keeping updated, getting materials, getting answers, learning the online medium, and achieving a sense of belonging.

McFerrin (1999) observed two types of incidental learning outcomes when she analyzed one of her online distance education courses – students' increased skills in using the technology itself and an increase in time management ability, self-directive behavior, self-confidence, and self-discipline. Such unintentional or unplanned learning that results from other activities, while it may not be recognized or labeled as learning even by the learners themselves, can result in improved competence, changed attitudes, and growth in interpersonal skills. The incidental learning and unanticipated outcomes that are a result of the second level effects of communication technologies are contextual, social, and representative of the situated nature of the learning interaction.

Influence of Social Contexts on the Online Experience

Factors of the social contexts that impact how learners experience online learning environments have been examined to some extent in the research. Quinn (2000) observes that "social elements are not separable from knowledge or content elements. The acquisition of knowledge via online delivery is inextricably linked to the social dimension" (p. 36). Cox (1997) suggests that online communities need to be given time to evolve, and Comstock and Fox (1995) propose that this process can be enhanced through social, informal dialogue and the exchange of stories. Such storytelling and personal conversation appears to create a web of social support that builds personal commitment and encourages collaborative learning which can be demonstrated through dialogue, discussion, and critical reflection.

Central to this theory is the construct of social presence, which has been linked to participants' satisfaction with online learning environments. Rourke, Anderson, Garrison, and Archer (2001) define social presence as "the ability of learners to project themselves socially and emotionally in a community of inquiry" (p. 3). Gunawardena and Zittle (1997) researched the social context of computer-mediated conferencing, and observed that users' perceptions of computer-mediated conferencing as a social medium depended upon the types of interactions that take place between participants and the sense of community that is created. Their research suggested that learners considered the social presence of other learners and the instructor as an important predictor of satisfaction in an online learning environment. Wiesenberg (1995) also emphasized the importance of the social moderating role of an online instructor in providing supportive advice and alleviating the stress and loneliness which can be experienced by online learners. Rourke et al. (2001) refer to social presence, along with cognitive presence and teaching presence, as three elements that intersect to form an educational experience. They assert that social presence supports both cognitive and affective objectives, and that computer-mediated conferencing environments can support social presence despite the absence of social context clues. This research which emphasizes the important role of the social element in an online environment can be linked to what we know about members in a community of practice who are drawn to learn together by both social and professional forces. If the goal of an online environment is to facilitate a community of practice, then understanding the importance of the social dimension and utilizing some strategies that can increase social presence are essential.

Another aspect of social context in online environments that is of particular relevance to my research concerns the gender of participants, for 96% of the Adult Learning Council coordinators in Alberta are women. Some research proposes that women tend to view technology as a tool to accomplish other tasks, in contrast to men who view it more as a toy to be conceived of and approached as a separate entity (American Association of University Women, 2000). Campbell et al. (2000) refer to women's early socialization away from technological tools and contexts, and stress the need to design online environments that honor women's ways of knowing and their preference to learn in connected and holistic ways. Zuga (1999) cautions that "technology educators need to understand that women's values will enter into their valuing and use of technology and that women will find ways of using the technology for their own priorities, just as any one should" (p. 10). Zuga observed that women as technology users often co-opt the technology as it was originally designed and utilize it to further their values, particularly their need to communicate. Gefen and Straub (1997) studied gender differences in the perception and use of e-mail, and observed that men and women differ in their perceptions but not their use of e-mail. These researchers suggest that women valued the networking capabilities afforded by e-mail moreso than did men. In the light of these various studies, we can conclude that how women participate in, think about, and learn within an online community of practice will be shaped by and situated within the nature of their gendered experience.

The Moderator

In the literature surrounding online learning, there is much discussion of the importance of an effective moderator in creating a stimulating and supportive online experience. Hiltz and Turoff (1993) first identified the role of the moderator, and this role has been closely examined and redefined over the last few years. Tagg (1994) defines the moderator as one who provides support and stimulates, who "weaves" the discussion to keep it on track, who provides leadership and continuity, and who troubleshoots and attempts to humanize the technology. Mason (1994) summarizes the role of an online moderator as combining elements of teacher, chairperson, host, facilitator, and community organizer. Harasim et al. (1995) correlated active involvement of moderators with increased student participation.

Mason (1991) categorizes the multiple roles that computer conferencing moderators must possess into three main role functions. These include the organizational role (setting the agenda and managing the interactions), the social role (creating a friendly social environment), and the intellectual role (serving as educational facilitator to focus discussions, ask questions, and probe responses to encourage students to expand and build on comments). Paulsen (1995) provides a practical list of suggested facilitation techniques for each of these three role functions, and draws attention to the preoccupation in the literature with the organizational function. He infers that the literature on moderating (which he argues is based primarily on personal accounts) focuses on the organizational function since this is where the medium differs the most from face-to-face instruction, whereas the intellectual and social functions are less influenced by the delivery medium. Instead of providing general guidelines for moderating, he recommends that moderators should identify their preferred pedagogical style which is based on their philosophical orientation toward education, chosen moderator roles, and preferred facilitation techniques. Berge (1997) concurs with this connection between moderator practice and philosophical orientation, when he speculates that teachers who are grounded in a student-centered approach to teaching may make an easier transition to on-line teaching since they are already oriented to discussion and interaction. Berge (1995), however, sees the moderator role as containing four functions instead of three – he categorizes these four moderator functions as pedagogical, managerial, technical, and social.

Other researchers have examined how the moderator role functions change over time as an online conference grows and develops. Rohfeld and Hiemstra (1995) argue that the moderator must attend to two types of group processes that shift over time. They identify group-building as the process of attending to the task the group is undertaking whereas maintenance refers to the functioning of the group as a group. They outline several moderator tasks for the first type of group process involved in initiating an online conference. These functions include training learners to use the software, establishing the tone for a positive experience, preparing study guides or learning materials, planning for varied electronic communication opportunities, providing a variety of learning options, and incorporating other electronic resources. The second type of group process – maintenance – requires the moderator to have a repertoire of techniques to sustain the discussion and ensure it remains productive, interesting, and educational. Such techniques include initiating discussions, weaving threads, soliciting responses from different participants, intervening when appropriate, probing to expand thought, and summarizing key themes. Rohfeld and

Hiemstra also acknowledge that it is normal for online conferences to go through periods of relative inactivity or low energy, and they suggest moderator strategies for re-energizing during these periods, such as creating polling or brainstorming activities, using debates, incorporating synchronous discussions, inviting an online guest, or arranging for students to moderate discussions.

Salmon (2000) outlines a five-stage model that e-moderators can use for managing online discussions as a conference grows and develops over time. The key issues for the moderator in Stage 1 involve helping learners to gain access to the online system and providing encouragement to spend the time and effort required to feel comfortable. In Stage 2, the moderator needs to help learners adjust to this new type of learning environment, and so must provide guidance regarding both the technical and social aspects of online behavior and communication. In Stage 3, learners have become more adept at information exchange and the interaction centers around content and sharing of information. Now the moderator must help learners develop strategies to deal with information overload. In Stage 4, the moderator must demonstrate skills related to group building and maintenance, so the focus shifts to facilitating the process of knowledge construction. Learners are now able to respond to each other's messages, understand how to navigate within the system, and are involved in active learning. In Stage 5, the learners become responsible for their own learning and need little additional support of the type required by the moderator in earlier stages. The moderator now needs to provide links outside of the closed conference, and nurture a constructivist approach to learning. While this five-step approach might be criticized for its progressive lock-step nature, it nevertheless provides a framework for online moderators to understand and predict how their roles and associated tasks will shift over time. The nature of the online interactivity will change as the online conference develops, and the moderator's role must adjust accordingly.

Much of the research on online moderators is situated within the context of formal distance education environments which is not the focus of my particular study.

There is less literature on the role of the moderator in informal online learning environments, but what does exists suggests that, despite differences in student motivation and leadership issues of power and authority, the moderator assumes similar roles as in a formal learning environment. Burge, Laroque, and Boak (2000) reflected on their experiences as online moderators and their expectations of participants in noncredit professional development activities online. They reported that moderating in this new context of voluntary online discussion challenged some of their assumptions about moderating within a credit environment, and that the social context of the participants needed to be factored into expectations for participation. Unlike students in a credit course, participants in an informal online learning experience are not united by the same common goal to pass a course, do not have the same motivation to earn credits for participation, do not necessarily know each other, and have competing priorities that limit the amount of time and cognitive energy they can devote to contributing to the online discussion. The asynchronicity of any time interaction that has often been heralded as a major advantage of online communication can become an inhibitor to participation and group cohesion in a setting where people who are leading busy lives can easily relegate checking in and actively participating to the back burner. This new context contrasted significantly from the context of a formal distance education course, and the moderators suggested rethinking what outcomes would be realistic given the context of online professional development conferences for work-stressed practitioners.

Collins and Berge (1997) surveyed a diverse group of moderators of electronic discussion groups to identify their perceptions of their roles, tasks, and responsibilities. Those moderators mostly served on a volunteer basis to moderate discussion in a variety of different online discussion groups in informal contexts. In this study, neither gender, age nor academic degree were questioned as these were not considered to impact the areas under investigation, but from the names of the respondents, it was estimated than less than two percent of the moderators were female. Ten categories of moderator roles were listed, with content filterer identified most often, followed by firefighter, facilitator, and administrator. Moderators in this study saw key functions of their role as keeping out tasteless jokes, advertising, and irrelevant or illegal contributions, preventing flame wars and refereeing conflicts. Mentioned less often were elements of the social and intellectual role as identified by Mason (1991). The categories and indicators in this study does raise the question if gender really should have been assumed as having no impact on perception of moderator role, and relates to Campbell's (1998) research on discourse patterns of online facilitators that indicates male facilitators tend to see their role as task-oriented and organizational/procedural whereas female facilitators focus facilitation efforts more on maintenance of socio-emotional group process. The moderators in the Collins and Berge study (1997), almost exclusively male, put more emphasis on controlling organizational aspects of the group and less emphasis on facilitating the social and educational aspects of the community.

As Berge and Collins (2000) note, the literature on online moderators who do not have an academic purpose or affiliation is small and consists mostly of reports of individual experiences. Green (1998) succinctly articulated the differences which I personally had encountered in my contrasting online moderating experiences when she observed important differences between moderating in an online classroom and moderating an online meeting, not the least of which is the difference in motivation of the participants. In an informal online learning environment, not only is participation voluntary but moderators in these informal situations lack the automatic power and authority that comes with being the instructor in a credentialed environment. Yet they still assume many of the same organizational, social, and intellectual roles as do moderators of formal online learning. Since much of what we understand about moderators of online environments is restricted to those instructors who have taught formal distance education courses, there is a need for more research into online facilitation in a variety of informal contexts. My research, which includes reflections on my own role as a moderator in an online community of practice as well as participants' interpretations of that role, will add to our understanding of this type of facilitation.

Up to this point, my review of the literature regarding online learning has informed me about many attributes and concepts that will assist in my understanding of how participants in my research study experienced their online environment. The opportunity to find a sense of community, to engage in collaborative learning that is relevant to one's work or personal life, to share a social experience that honors individual contexts, and to be supported by a moderator that shepherds this journey all combine to make the online experience sound alluring. But not everyone immediately adopts a new innovation such as online learning, either in formal or informal contexts, and not everyone participates to the same extent. One last body of research on the diffusion of innovations sheds a different light on why this might be the case despite the best attempts of the humans designing the process.

Diffusion of Innovations

A different framework for describing how people do or do not use a technology is the diffusion of innovations theory of Everett Rogers (1995). Rogers introduced the concept of diffusion as the process by which an innovation is adopted and gains acceptance by members of a certain community. An innovation is defined by Rogers as "an idea, practice or object that is perceived as new by an individual or other unit of adoption" (1995, p. 11). He states that "diffusion of innovations is essentially a social process in which subjectively perceived information about a new idea is communicated. The meaning of an innovation is thus gradually worked out through a process of social construction" (Rogers, 1995, p. xvii). The computer-mediated environment would be considered an innovation by the participants in my study, so it is worthwhile to consider what light this research, from a field outside education, can bring to bear upon my evolving understanding.

Rogers outlines four widely used instrumentalist theories of diffusion including the Innovation Decision Process, Individual Innovativeness, Rate of Adoption, and the Theory of Perceived Attributes. In the latter theory, Rogers theorizes that members of a social system perceive the characteristics of an innovation according to five attributes which determine their judgment of its value and consequently its rate of adoption. The five attributes include relative advantage, compatibility, complexity, trialability, and observability. Anderson and Kanuka (1997) used these five perceived attributes to evaluate perceived value among participants in a three-week virtual forum, claiming that online forums have a good chance of being adopted as an effective and functional means of consultation and collaborative work among professionals.

Rogers' theories have been criticized as being too rational and linear to fully explain how users perceive technological innovations and make the decision to adopt them. While the diffusion of innovation model highlights the user's perceptions, the focus of those perceptions is still upon attributes of the technology or innovation itself. As such, the model does not pay sufficient credence to the situated nature of the social relationships that are embedded within the use of the technology. Despite these limitations, Rogers' theory is important in that it rejects the assumption that superior technology products will automatically be adopted by potential users. Translated into the context of my study, Rogers' theory signals that merely having access to an online environment with all of its trumpeted convenience of use, opportunities for learning, and promise of social connection may not guarantee that adults will adopt the innovation and participate in it. Rogers' work reminds us that as we introduce new technology tools into specific social contexts, those contexts themselves with the opinions, needs, backgrounds, and perceptions of the individuals within them are instrumental in determining the adoption of such technologies and how they are subsequently used.

In summary, this literature review has focused upon key bodies of research that help to inform my understanding of how adults might interpret their experience in an informal online environment that is available as part of their working context. Adult learning theory, and in particular situativity theory, is important to consider when studying why individuals participate in an online community and what meaning they ascribe to their experience. The conceptual framework of communities of practice potentially gives new shape to viewing this online experience as one where individuals come together in an informal learning situation to improve practice and construct meaning and identity, rather than viewing it as similar to a formal course or as merely social communication. The literature on how online technology affects the learning experience, and especially the central role that the moderator plays in that learning, has also influenced my thinking. My research will draw upon these different fields of adult education, collegial learning through communities of practice, and online learning in both formal and informal settings. Weaving threads from each of these tapestries will help to create a further understanding of adults' experience in an online community of practice.

CHAPTER 3: METHOD AND PROCEDURES

The purpose of this study was to understand participants' experiences in an informal online learning environment and assess the extent to which their experiences constituted a community of practice. The methodology, participants, data collection, and analysis procedures for the study are described in this chapter.

Qualitative Research

Qualitative research can generally be characterized as the attempt to understand in-depth meanings of human situations. This type of research has been defined as "multimethod in focus, involving an interpretive, naturalistic approach to its subject matter" (Denzin & Lincoln, 1994, p. 2). Qualitative research methods in general are designed to help researchers understand people and the social and cultural contexts within which they live. Qualitative research uses natural settings as the source of data, and the qualitative researcher seeks to interpret meanings in context.

Since the purpose of my research study was to understand the experience of participants in an online environment, a qualitative research orientation was the most suitable choice to see and interpret that world from the participants' frame of reference. Some researchers suggest that there is a particular need to apply qualitative approaches to the study of technological innovations in order to shed light upon the human dimension that can be overlooked in more positivist approaches. Kollmann (2000) argues that quantitative approaches and usage figures alone provide little help in answering questions as to why people adopt new technological forms of communication and what effect using these technologies has on them in their everyday lives. Johnson (1995) recommends that technology educators "engage in research that probes for deeper understanding rather than examining surface features" (p.4). If effective programs, technological or otherwise, are to be put in place, the perspectives and experiences of those people who are to be served by applied programs must be "grasped, interpreted, and understood" (Denzin, 1989, p.105).

Patton (1990) believes that qualitative methodology is appropriate where detailed, in-depth information is needed about certain clients or programs and where the intent is to understand participants' beliefs as to the nature of the situation they are addressing. If I wanted to understand how participants experienced and interpreted the online environment, I needed to do more than count up the number of postings and analyze the text of their discussions. I needed to talk to the participants, listen to them, be with them, and view the world from their doorsteps rather than attempting to interpret meaning just from the view on my computer screen.

The interpretivist aspect of the qualitative paradigm reflects certain beliefs and assumptions about the nature of reality and the relationship between the researcher and those who are being researched. Human beings understand events in their lives through a mental process of interpretation, which is influenced by and interacts with the social context. This simultaneous interplay results in the existences of multiple, socially constructed realities. This relativist ontology is interwoven with a subjectivist epistemology that conceptualizes the researcher and the participants to be inseparable parts of the inquiry relationship. As researcher, I brought my own values and constructions to the inquiry, as did all of the participants. The interpretivist perspective acknowledges that these values are an inextricable part of the context and process that influence the emerging social construction.

Context of the Research

Because the nature and function of Alberta's Community Adult Learning Councils are not commonly known, I will provide a brief overview of the Council context in order to help the reader understand the background setting for the study and the methodology which I employed.

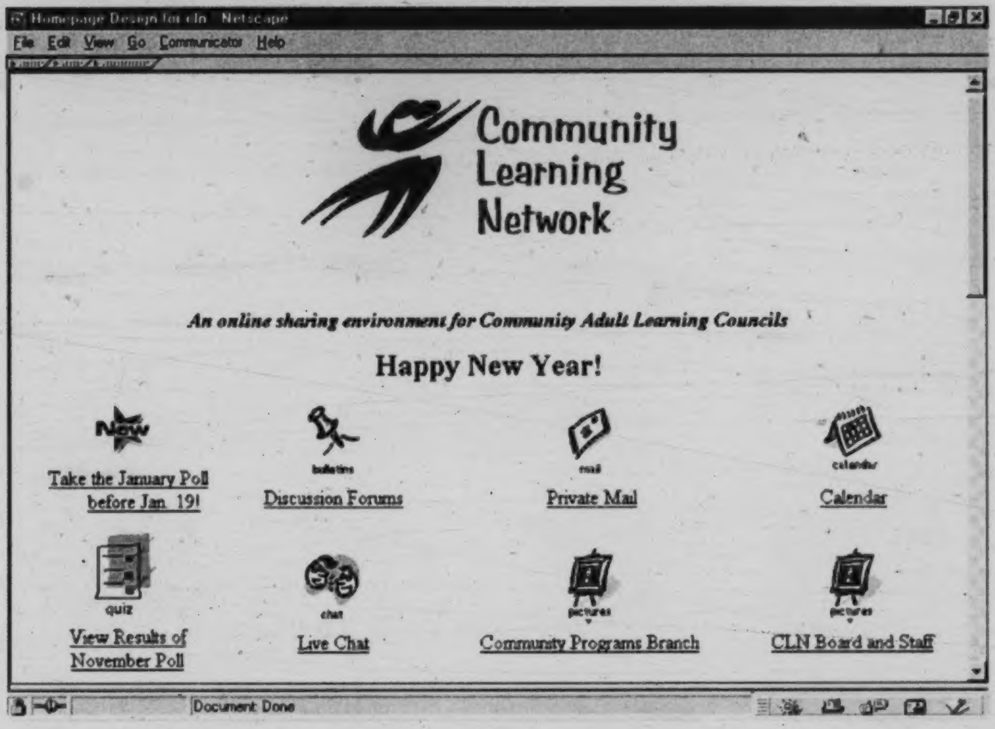
Since the early 1970s, the province of Alberta has implemented a unique approach to the coordination of community-based adult education. Throughout the province, 84 Community Adult Learning Councils (formerly called Further Education

Councils) provide non-credit learning opportunities to adults in such program areas as literacy, English as a Second Language, citizenship, occupational/vocational enhancement, and community issues. The Councils operate in all geographic regions of Alberta, and many serve small rural areas where access to traditional adult learning institutions is extremely limited. Each Council is characterized by public participation in determining locally planned educational experiences for adults within its area. Council members typically include volunteer representatives from the local school board, regional health authority, provincial agriculture department, post-secondary institution, community development agencies, public libraries, recreation groups, seniors' groups, local business, and volunteer organizations who are involved in informal adult learning. The Councils are base-funded by Alberta Learning Community Programs Branch, with over 80% of the Councils receiving less than $30,000 in base-grants each year (Alberta Learning, personal communication, September 20, 2000).

These 84 loosely structured Councils each usually employ only one part-time staff person – a Council coordinator. According to the 1999 Annual Report prepared by Alberta Learning's Community Programs Branch, the majority of these coordinators are female (96%), are employed part-time (provincial average of 21 hours per week), and are paid less than $16,000 per year. The coordinators are widely separated geographically, with many working in small rural communities, and of necessity usually working in isolation from each other. They typically work alone in a small office that may be located in a provincial building, a municipal or school district office, or a post-secondary institution. Normally, they physically meet with their peers only a couple of times per year, at their annual provincial conference or at a regional meeting. Historically there is a high turnover of coordinators, approximately 21% each year, so there is a continual influx of new people coming in to the position. A variety of conditions contribute to this high turnover, including low wages, lack of paid benefits, insufficient part-time hours to accomplish job tasks, limited orientation and training, lack of support staff, difficulties with non-profit board relationships, isolation of the job, and following a spouse due to employment transfer.

While each Council is different, the majority of coordinators perform many similar tasks. In their job, most coordinators program non-credit courses, collaborate with other organizations to create local learning opportunities, perform public relations and promotional activities, prepare grant proposals, do advertising and marketing, support individual learners, administer a local office, perform accounting, bookkeeping, and fundraising functions, and manage special events. As Hayes states "women's learning cannot be understood if the social contexts in which it takes place are not taken into account" (Hayes, 2000, p. 51), so I have tried to illustrate the multiple activities that most coordinators juggle while working part-time in solo office environments in primarily rural Alberta communities.

In April, 2000, the Community Learning Network (the provincial non-profit organization that represents Council coordinators) received funding from the Community Programs Branch of Alberta Learning to initiate a one year pilot project called Community Learning Network Online (CLNOnline). This project planned to use Internet technologies to increase communication among coordinators and between the coordinators and the Community Programs Branch, to facilitate collaborative planning and sharing of information, and to expose coordinators to online learning tools. A password-protected WebCT computer-mediated conferencing environment was designed with the creation of a website, private and public discussion forums, an interactive calendar, private mail, and live chat. A screenshot of the home page for CLNOnline is shown in Figure 1:



Community Learning Network

An online sharing environment for Community Adult Learning Councils

Happy New Year!

Homepage Design for cln - Netscape
File Edit View Go Communicator Help
New
Take the January Poll before Jan. 19!
bulletins
Discussion Forums
mail
Private Mail
calendar
Calendar
quiz
View Results of November Poll
chat
Live Chat
pictures
Community Programs Branch
pictures
CLN Board and Staff
Document: Done

Figure 1. Screenshot of CLNOnline home page

It is within this background context that the research study was situated.

Research Design

This research was an interpretive study that utilized a multi-method approach, and was based upon practices and assumptions inherent in a qualitative approach to inquiry. Thomsen, Straubhaar, and Bolyard (1998) propose such a multi-method approach to the study of online communities to enable a multi-source, multi-method triangulation. They caution that while technology has enabled researchers to review copious quantities of online text, such analysis alone is insufficient without the prolonged engagement and active participation on the part of the researcher to become a part of this online world in order to understand the nuances of its context and discourse. They also advocate the use of qualitative interviews with participants to further understand the meanings they ascribe to their experiences.

This research design incorporated all of the recommendations of Thomson et al. In this study, I used multiple methods for data collection, including a review of online postings, a survey, and individual interviews. I employed an inductive approach to data analysis, looking for themes and patterns that would provide insight into the experiences and understandings of the participants. I had also served as moderator of CLNOnline for its duration from May 1, 2000 to April 1, 2001, so had active prolonged engagement for a year with the participants. I also had previous experience with their culture having worked as a Council coordinator in the past and having completed my Master's thesis on case studies of six coordinators (Gray, 1992). I knew that this culture involved a strong belief in community-based non-credit learning, and was aware that coordinators believed that this non-credit programming was devalued by society in comparison to credit programming offered by formal institutions. I knew that the role of coordinator was generally perceived as "women's work", and while coordinators often complained amongst themselves about this perception, there was general acceptance of the situation and very little active challenge to structural limitations. Because of my experience in post-secondary and K-12 educational arenas, I could distinguish that the Council culture was more acquiescent in its relationship with government and was far more accepting of government policy and procedures, even those that could be construed as working against them. Council culture valued sharing and collaboration over competition and autonomy; it clearly valued accommodation over confrontation. Coordinators, in general, believed that their work made a difference for their communities, and accepted the structural limitations of their position as a trade-off for the flexibility to accommodate their multiple roles as women (Gray, 1992).

Role of the Researcher

In this study, I served as the moderator of this online community of practice for its pilot year from May 1, 2000 to April 1, 2001. As such, my experiences intertwined with those of the other participants. I was very conscious of how this immersion in the study would affect my role as researcher, and spent many hours thinking and journaling about this intersection of moderator and researcher. I knew that a qualitative approach to inquiry does not require objectivity and distance from the data. Instead, as Denzin and Lincoln state, qualitative research is a "situated activity that locates the observer in the world" (Denzin & Lincoln, 2000, p. 3). I did, however, want to outline the presuppositions that I brought with me as researcher to provide the reader with a framework to assess the validity of the data.

I certainly possessed what Glaser and Strauss (1967) and Strauss and Corbin (1990) refer to as the "theoretical sensitivity" of a researcher that includes personal and professional experiences necessary to develop an awareness of subtleties in the meaning of data and the capacity to understand the context. In the past I had been employed as a coordinator of a Community Adult Learning Council for nine years so I certainly had been one of them, and had walked in their shoes. If, as Patton (1990) emphasizes, the credibility of a qualitative research report relies heavily on the confidence that the readers have in the researcher's ability to be sensitive to the data and the situational context, then my past experiences within the Council context and my experience as moderator and participant in CLN Online would enhance the understanding of this online environment rather than detract from it.

Over the past six years, however, I had tried on different shoes and trod a different path. I had changed jobs and had become very much involved in educational technology and distance learning. The Internet had exploded onto my personal and professional scene, and I vividly remember my first online experience as a "where-were-you-when-Kennedy-was-shot" moment. Suddenly a computer was more than just a word processor, and the future looked totally different to me. I could communicate with people! Anywhere! Any time! What possibilities this held for adult learning in so many shapes and forms! During those last six years, I plunged into the online world in both formal and informal settings. I became a student and an instructor in post-secondary distance education courses, and I took on the challenge of helping teachers learn to integrate technology into K-12 education. In both sectors, I saw technology used very badly and very well. I subscribed and unsubscribed to listservs and discussion groups, lurking in most, posting to few, and moderating others. Through e-mail I reconnected with my siblings who were scattered across the globe, and cherished this new way of knowing them and feeling close to them despite vast geographic distances. I watched in wonder as my growing sons assimilated each new technology as easily as they learned to breathe. I observed that they learned how to use the technology not through formal schooling or from a teacher, but through a context meaningful to them – computer games – and through collaboration with their own peers, most of whom they had never met, in their own online communities of practice.

These personal experiences with the good, the bad, and the ugly of technology in social and educational domains shaped my beliefs, values, preconceptions, and understandings. I had faith that online networks had the potential to bring groups of adults together to learn collaboratively through sharing their experiences, but I was also convinced that the technology itself was only an enabling structure. Technology could make things possible, but it was people who made things happen. It would be the people who would ultimately determine if an online environment would be a supportive and affirming collaborative learning space or if it would be a repository for lecture notes and PowerPoint files.

These experiences, beliefs, and values shaped the actions I performed in my role as moderator of CLNOnline. I went online every day, not always actively posting, but checking to see the conversations which were unfolding and checking the status reports to see who was "lurking" and who had not logged on for a period of time. In the beginning, I provided several postings regarding the technical aspects of accessing the system and navigating through the various components of the online environment. I responded to several e-mail and phone call requests for technical trouble-shooting as coordinators started to use the system, but the demand for this technical assistance decreased as coordinators became accustomed to using the tools. To help coordinators learn to use different components of WebCT and to improve their Internet searching skills, I constructed playful "homework" assignments and sent personal rewards such as virtual bouquets via e-mail to those who completed their tasks. I tried a variety of strategies to encourage participation. After any participant's initial posting, I would send her a private e-mail thanking her for her contribution and encouraging further interaction. I also sent private e-mails in response to particularly helpful postings, including both those that were helpful in a practical sense and those that were helpful in supporting and sustaining the social component of the online community. Sometimes I sent humorous e-cards or attached cartoons or animated gifs related to the coordinators' work. When discussion seemed to lag, I created on-line polls to stimulate participation, and followed up on the results of these with postings designed to encourage reflection. Occasionally I sent private e-mails to specific individuals encouraging them to post on a particular topic where I knew they had a special interest or expertise. I scheduled live chats for a change of pace and to provide exposure to synchronous communication. Throughout the year, I continued to feel a keen sense of responsibility as moderator to keep CLNOnline a safe, supportive, and collaborative learning place.

I have presented this reflexivity to give the reader an understanding of some of the experiences, beliefs, and values that influenced me as a researcher in this inquiry. This will allow the reader to interpret the findings in relation to these factors. As the moderator of CLNOnline, I was a participant throughout the entire experience. As a researcher, my role was to understand and interpret the experiences of other participants who shared that journey. Presenting my presuppositions here and keeping a self-reflective journal throughout the research process were attempts to increase the credibility of the study.

Participants in the Study

Participants in the study consisted of:

- 43 Adult Learning Council Coordinators in Alberta who completed an online survey. These 43 coordinators had logged on at least once to CLNOnline during its pilot year from May 1, 2000 to April 1, 2001;
- 10 Adult Learning Council Coordinators and the manager of Alberta Learning's Community Programs Branch who participated in personal interviews. All of these interview participants had logged on at least once to CLNOnline during its pilot year from May 1, 2000 to April 1, 2001.

Data Collection

The research design used three strategies for data collection: a review of online postings, a survey, and interviews with selected participants. As is common in qualitative research, data collection and data analysis occurred concurrently, but I will first outline the data collection sources and in the next section I will explain the method and procedures I used to analyze the data.

Review of Online Postings

I reviewed all of the 1028 postings made to the 33 public and private forums in CLNOnline during the period from May, 2000 to April, 2001. A breakdown of the forum topics and number of postings in each is included in Appendix A. I also reviewed the transcripts of five live chats that I had moderated during the period, as well as the WebCT private mail correspondence between the participants and myself as moderator. In addition I viewed the WebCT tracking logs that itemized for each participant the number of log-ins, number of postings made, and number of postings read.

I used the online postings as a data source to achieve two specific objectives. The first was to gain insights into the way participants used the online environment by examining their participation patterns and the nature and function of the online discourse. This allowed me to re-immerse myself into the ebb and flow of the conversations and to identify themes and patterns that were not obvious while the environment itself was unfolding. The second objective was to help select participants to interview in depth. The tracking statistics of WebCT allowed me to determine who logged on frequently and who did not, who were active posters and who primarily stayed in the background and "lurked." This provided me with one type of information to make some choices. By re-reading the text of the online postings themselves, I could also make some choices based on the nature of participants' contributions to the online discussion. This also helped in designing some of the interview questions.

Survey

A survey was designed to collect data for two specific purposes. The first purpose was to gain information that would help to describe the demographic characteristics of the participants. Data such as age, gender, geographic location, length of experience as a coordinator, number of hours worked per week, and technology access and expertise assisted in constructing an initial overall picture of the participants in the online environment. The second purpose of the survey was to invite participants, through open-ended questions, to share their perceptions of their online experiences. The questions were designed to be general enough to elicit a wide range of responses that could then be analyzed to determine to what extent these experiences constituted a community of practice. Knowing the culture of the coordinators, I felt it was important to provide an opportunity for all coordinators to share their experiences and perceptions, so the survey provided a mechanism for those who were interested to have input into the research.

The survey was delimited to those coordinators who met both of the following criteria:

- Coordinators who had logged on at least once to CLN Online between May 1, 2000 to April 1, 2001; and
- Coordinators who were still employed at the time that the survey was distributed in April, 2001.

I used the tracking capabilities of WebCT to determine which coordinators met the first condition, and then I consulted with Community Programs Branch of Alberta Learning to determine which of those coordinators also met the second condition. Of the 67 coordinators who met both criteria, I selected six to do a pilot test.

I constructed the survey as an online interactive survey using the WebCT survey tool which ensured that it would be accessible only to invited participants, that only one survey could be completed by each participant, and that the survey could be completed anonymously. The WebCT survey tool also identified which participants had completed the survey, but did not tag any responses to specific individuals. Information about informed consent constituted the first component of the survey website. The survey consisted of 16 multiple-choice questions and 7 open-ended questions. I contacted the six coordinators to request that they take part in the pilot test, and then made the survey accessible to them on the CLNOnline website. The pilot test revealed no significant technical problems or problems in survey design, so the data from the pilot group were included in the overall study. The survey instrument is included in Appendix B.

Fortuitously, the coordinators' annual provincial conference was held during this time, and I was able to briefly explain my research to those coordinators in attendance and make them aware of the upcoming survey. I then sent e-mail invitations to the coordinators who met the two sample criteria (except those who had participated in the pilot test), including in the e-mail a link to the survey on the CLNOnline website.. A copy of the e-mail invitation to participate is included in

Appendix C. Coordinators were given from April 1 – 27, 2001 to complete the survey. A follow-up e-mail was sent on April 16 as a reminder notice, and is included in Appendix D. Of the potential 67 coordinators who were invited, 43 responded to the survey for a response rate of 64%. (The six coordinators who pilot tested the survey are included in the 43 responses).

Interviews

A third method of data collection involved personal interviews with 11 participants, including 10 coordinators and the Manager of Alberta Learning's Community Programs Branch. The main objective of the interviews was to gain a deeper understanding of the participants' experiences and to gather descriptive data in the participants' own words. Ten interviews were conducted on site at the work location of the interviewee, and one was conducted by telephone. I considered it extremely important to conduct the interviews on-site in order to gain an awareness of the local context. It was one thing for me to go online when I had high-speed access at work and at home, when I used a powerful computer to flip from one application to another while playing music in the background, when I had technically savvy teen-age sons at home and a battery of technicians at work to bail me out when things went wrong. I sensed that it might be quite a different online experience for coordinators who did not have those supports in place, and I wanted to see the world from their doorsteps.

I chose purposeful sampling techniques (Patton, 1990) to determine which coordinators to interview. The criteria for selection included:

- A range of experience in the position of coordinator;
- A range of technical skills and experience using Internet technologies;
- A range of participation patterns in CLNOnline;
- A variety of geographic locations and size of community;
- Individuals who could articulately describe their experiences in order to obtain that thick description so crucial to qualitative research.

I used a variety of approaches to help determine which coordinators to interview. First, I used WebCT tracking statistics of the number of log-ins, postings, and articles read to help select interviewees who represented a range of online participation patterns. I did not want only the "keeners" or most active participants. Second, I reread all the online postings to make some choices based on the nature of the online discussion, primarily what type of stories were shared and how they were told. Third, I consulted with the Community Learning Network provincial organization to determine which coordinators were relatively new to the position, and which had more years of experience. Fourth, I considered the geographic location and size of community where the coordinators worked, using the list of Councils provided by Alberta Learning. Through juggling all of these factors, I finally selected ten coordinators to interview. I hope to show that this variety represented the diversity of Council coordinators as well as showing that the variety of skill level, access, and participation was representative of members of society as a whole as they begin to use online technologies.

Portraits of interview participants and their context.

At the end of each interview, I asked each participant for demographic data that allowed me to construct the following portraits. All of the coordinators interviewed were females between the ages of 31 and 65. Half were over age 40, and, of these, two were between the ages of 50-65. They exhibited a range of experience in the position of Council coordinator. Four were quite new to the position, with less than 2 years experience. Three had over 5 years experience and three had been in the job over 10 years. Most worked in small, rural communities: six worked in communities of less than 10,000 people, three worked in communities with populations ranging from 20,000 and 50,000, and only one worked in a community of more than 50,000 people. Of the group, I had met half in the past through my own experience as a Council coordinator, and the other half I had never met face-to-face.

The coordinators I interviewed demonstrated a variety of technical skills and experience with Internet technologies. For most, the extent of their experience using the Internet involved e-mail and some limited web searching. Of the ten, two assessed themselves as "being very new to the Internet" or "not having a clue." While all but one coordinator had some previous experience using e-mail, only two had previous experience in online discussions or listservs, and only one had experience taking a formal distance education course. In terms of Internet access, seven out of the ten had high-speed access at work while the other three had dial-up Internet connections. Eight of the ten also had Internet access at home, with all of these being through dial-up connections. As a collective portrait, while all had Internet access at work, most had very limited experience using Internet technologies beyond basic e-mail. Of the group, only one coordinator was experienced in both her job practice and in using Internet technologies. None considered themselves "techies."

In terms of their online participation, again the ten coordinators represented a range of activity. Half were regular users, logging on to CLNOnline either daily or at least once a week. Of these regular users, three were new coordinators and the other two had ten or more years experience in the job. The other five coordinators logged on less frequently, with three estimating that they logged on at least once every two weeks and two who logged on approximately once a month. These latter two who represented infrequent users were at opposite ends of the job experience spectrum, with one being a new coordinator and one having over ten years experience.

In summary, there turned out to be no straight correlations in this interview mix in terms of online participation, length of experience as a coordinator, age, technical skills and experience, type of Internet access, or size of community. The only factors all interviewees had in common were that they were female, were employed in the position of Council coordinator in an Alberta community, and had participated in some fashion in CLNOnline. Some knew each other from past experiences and conferences, and some had never met. Some were brand new to the job, and some had been a coordinator "forever." Some were active participants in CLNOnline, logging on and posting regularly; some logged on regularly but mainly "lurked"; and some logged on only occasionally. As such, their experiences represented a variety of rich data sources for my study.

In addition to these 10 coordinators, I also interviewed the Manager of Alberta Learning's Community Programs Branch to obtain her perspective as a government representative in this online environment.

Interview process.

I contacted each of the 11 participants by phone or e-mail to explain the nature of my research and to ask if they would take part in an interview. I then followed up with an e-mail confirming the date and time of the interview, the general topics for the interview, and a copy of the ethical research consent form for them to view. The interviews were conducted between May 1 and June 30, 2001, with ten being conducted on site at the participants' workplace. One participant had to reschedule her interview, so that interview was conducted by telephone.

The interviews were semi-structured, and I designed a general interview guide to keep me on track in collecting comparable data from each interview. The semi-structured nature of the interviews, however, meant that I felt free to vary from the interview questions in order to follow points of interest that arose during the conversation. I constructed the interview questions in an attempt to understand participants' day-to-day experiences in CLNOnline and to determine to what extent their experience constituted a community of practice as outlined by Wenger. The interview guide is included as Appendix E.

Prior to each interview, I reviewed each participant's online postings. This helped me to prepare for the interview by being able to refer to specific examples if needed and to make notes about questions I wanted to ask that were specific to each participant's experience. The interviews lasted approximately 45 minutes each and were tape-recorded. After each interview, I transcribed the tape and analyzed it into categories and themes as outlined later in the data analysis section. I then sent a summary of the themes to the participant by e-mail, asking her to verify that they accurately represented her understanding and inviting her to add any additional information. I chose to send themes instead of returning complete transcripts, because I wanted verification of my analysis more than verification of the actual discourse. All participants responded confirming that the themes reflected their experience, and additional comments that they made were incorporated into the data collection.

Data Analysis

The data gathered in this study were analyzed using an inductive approach common to qualitative inquiry (Miles & Huberman, 1994; Patton, 1990). As Patton (1990) observes, there are no general "rules" in qualitative data analysis – only general guidelines and procedural suggestions - and because each qualitative study is unique, the analytical approach used will be unique. Data analysis occurred concurrently with data collection, and I found myself cycling back through the data many times as I tried out patterns and themes, modified them, rejected them, recreated them, and modified them yet again. The following description attempts to capture the general inductive approach to analysis that I used, but the steps themselves had a way of overlapping and slipping out of sequence as I kept sifting and sorting through the data.

I began by reviewing the WebCT tracking data to determine some general participation statistics. There were a total of 1028 messages posted in 33 forums. There were 691 messages posted to 17 public forums, and 337 messages posted to 16 private forums (See Appendix A for a breakdown of forum topics and number of postings). As moderator, I had contributed approximately one-third of those postings (335 or 32.5% of the total). The most active forums in terms of number of postings were the private CLN Board forum (181 messages), where Community Learning Network board members discussed business and planned activities, and the public

What's New in CLNOnline forum (162 messages), which was originally intended primarily for moderator announcements but which the coordinators increasingly used as the "main" forum to post a variety of queries. The number of postings per participant ranged from a high of 106 to a low of 0, with the average number of postings per participant being 10 and the median being 3. The tracking data only provided total participation statistics, so there was no way to collect empirical data on average daily, weekly, or monthly postings.

Next I reread all the messages posted to CLNOnline over the 12 month period from May 2000 to April 2001. It was never my intent to do a detailed line-by line analysis of the online discourse since it would have been extremely time-consuming, and in the end would not have been worth the time involved in contributing significantly to understanding the experiences of participants in this online environment. Instead I analyzed the online postings into three categories. The first two categories were *information request* and *information offering*. The third category included what Fox and Roberts (1999), in their study of the sociology of a virtual community of general practitioners, called *formative messages* or those that helped to establish and sustain interaction. In this formative category, I also included messages that were primarily of a social nature not directly related to work topics. These categories illuminated the three functional purposes of how participants used the online environment, and were an appropriate framework for this stage of the analysis. Appendix F shows examples of postings that were included in each category.

While I was rereading the online postings and sorting them into these three general categories, the participants were completing the online survey. The multiple choice section of the survey provided me with descriptive statistics to construct an overall picture of the participants who were part of the online community. The following is a summary of demographic information collected from the survey.

The large majority of coordinators in the survey worked part-time, with approximately three-quarters (74%) being employed less than 25 hours per week. Most worked in small communities, with almost half (47%) working in an office located in a village or town with less than 5000 people. Historically there is a large turnover in the position of coordinator, and almost one-quarter of the participants in CLNOnline had been employed less than 1 year so were very new to the job. Over half had been employed as a coordinator for less than 5 years. Less than one-third (30%) had been in the job for more than 10 years.

All of the coordinators who responded to the survey were female. Most were of the "baby boom generation" - two-thirds were over age 40, with a significant portion of those (38%) being over age 50. Almost all (88%) had some form of post-secondary training, with half of those holding a post-secondary diploma or certificate and the other half holding a university degree.

The survey revealed that coordinators differed in how often they accessed CLNOnline and what technology they had at their disposal. When asked to estimate how often they logged on to CLNOnline, approximately one quarter (26%) logged on usually every working day, half (49%) logged on at least once a week, and another quarter (23%) logged on less than once a month. I was unable to compare these self-estimates with actual WebCT statistics because WebCT only tracked the total number of logons rather than daily, weekly, or monthly participation data. Over half (53%) accessed the Internet at work via dial-up modem, while the rest had a direct high-speed connection. In addition to logging on to CLNOnline at work, almost half (44%) had also logged on from a location other than work, most often from their homes. Most coordinators (72%) had Internet access at home as well as at work.

After analyzing the data from the multiple-choice questions of the survey, I then used Inspiration software to map the emerging categories from the open-ended survey questions. I began by using the rapid-fire feature of Inspiration to enter all the lower-level categories, and then rearranged and regrouped similar constructs into larger colour-coded themes. This gave me a visual representation of the emerging themes and their linkages to each other. For each category and theme, I extracted direct quotations from the data that supported those categories and themes and copied those into separate word-processing files. I then reviewed these themes, the categories from the online postings, and my initial research questions to help formulate my interview questions in order to tease out further meanings and insights.

As the data from the interviews became available, I followed a similar process. I again used Inspiration software to map initial lower-level categories and then to regroup these into possible themes. I spent innumerable hours at the computer with headphones on listening to the interview tapes, viewing the word-processed transcript on the screen, and working in Inspiration at the same time to enter categories and map themes. This multi-tasking was both helpful and enjoyable, since it allowed me simultaneously to return to the interview context, hear the inflections, read the text, and visualize the thematic patterns and relationships. Again I made separate word-processing files of direct quotes that supported categories and themes. Some quotes went in several files because they could be interpreted as supporting various themes. Each interview was analyzed in full before proceeding to the next one.

As I was working through the analysis, I moved back and forth between data sources to compare categories, collapse categories into themes, test those themes against all the data sources, try out different themes, and test those. Inspiration software was my ready assistant in this process, for it allowed me to quickly rearrange categories so that I could visually "see" the emerging webs and relationships, and could test out various configurations. I ended up with two large webs that formed the key topics of the two data chapters – participating in the online environment and understanding the nature of the online environment. Within each web were first-order themes (four in the first web and five in the second) and subthemes that explored the main ideas suspended within that web. In the final stage of the analysis, I looked across these two webs with their nine first-order themes and collapsed them into one web with three second-order themes to provide overall key findings and insights.

Criteria for Judging Quality of the Research

Guba and Lincoln (1989) identify trustworthiness and transferability as key criteria for judging the rigor or adequacy of the research in naturalistic inquiry. These two concepts are used as alternatives to the conventional measures of validity and reliability that are more closely associated with quantitative methodologies.

Trustworthiness

Trustworthiness refers to the extent to which the researcher's representation and reconstruction of a situation matches the constructed multiple realities of the participants. I used four main techniques to ensure trustworthiness or credibility. The first was prolonged engagement, since I spent twelve months sharing the online environment and several subsequent months engaged in the research process. The second technique involved triangulation "whereby a variety of data sources, different perspectives or theories, and/or different methods are pitted against one another to cross-check data and interpretation" (Guba & Lincoln, 1982, p. 247). In this study I used multiple data sources including a survey, individual interviews, and a review of online postings and tracking logs to strengthen the trustworthiness of the research. The third technique involved member checking to refer data and interpretations back to participants for correlation, verification, and challenge. After each interview was transcribed and analyzed, I e-mailed the themes of that interview to the participant involved asking her to verify that I had represented her understandings.

The fourth technique to establish credibility or trustworthiness was that of ongoing journaling to keep track of my own developing construction. I made a journal entry prior to each interview to make note of what I anticipated might transpire. I then made a journal entry immediately after each interview to record my thoughts and observations. I did the same thing before I conducted the survey and after I began to analyze the results, and I continued to journal as I cycled through the data collection and analysis. This technique of journaling as self-reflection was enormously helpful to ensure that I stayed grounded in the data from the participants' frame of reference. It helped me to reflect not just on what had occurred but also on my own impact on what had occurred – how my multiple identities as researcher, moderator, teacher, learner, graduate student, wife, mother, sister, and friend impacted my experiences and my interpretation of those experiences. Ongoing journaling and reading back through my journals helped me come to trust my instincts. I had initially been very anxious that my closeness to the online experience might tempt me into reading more into it than was really there. Because I had been a participant all along, I thought I could see that coordinators were finding CLNOnline to be valuable as a social and learning experience, and I thought I could detect that my efforts as moderator played a significant role. On occasion my journal writings seem to show that I tried to arm myself against these expectations, and I sometimes seemed to predict a worst-case scenario where I anticipated coordinators interpreting their experiences totally at variance with my understandings. When this did not happen, when instead my original instincts were confirmed, it felt good and made the effort of journaling very worthwhile from a personal learning standpoint.

Transferability

In qualitative research, transferability can be construed as a parallel criterion to reliability or generalizability. Transferability is always relative and depends entirely on the degree of similarity between the original situation and the situation to which the information is transferred. The interpretivist paradigm acknowledges that it is impossible to replicate the findings from one local context to another, so it is up to the reader to determine how transferable any learnings are. My main technique for ensuring transferability was to provide thick description of the time, place, context, and culture so that others reading the research could decide how similar this situation was to theirs and consequently to what extent the key findings and conclusions might apply in their situation.

Ethical Considerations

Informed Consent

Informed consent was received from participants to use the online postings, the survey results, and the interview transcripts in this study. Informed consent included an explanation of the research, how the research would be carried out, how the data would be used, a guarantee of confidentiality, and the provision to opt out at any time.

At the provincial coordinator conference in the spring of 2001, I had an opportunity to briefly explain my research and to tell coordinators about various ways they might be asked to become involved. At that time, the majority of participants signed a consent form indicating their permission to have their online postings used in the study. Coordinators who were not at the conference but who had made online postings were e-mailed a consent form. Only two coordinators who had made postings did not sign a consent form, and their postings were removed from the study with virtually no impact on the overall nature of the online transactions. The informed consent for the online postings is included in Appendix G.

Informed consent for the online survey took the form of an introductory page on the survey website (as previously illustrated in Appendix B). This introductory page confirmed that by completing the survey, participants had indicated that they understood to their satisfaction the information regarding their participation in the research project and that they were giving their informed consent to participate.

An informed consent letter was sent to all interview participants via e-mail prior to their interview. This was to give them an opportunity to read the consent form ahead of time. The consent form included an option to opt out at any time during the study as well as a request to contact them for further discussion if necessary. I then took a hard copy of the consent letter to each interview and the participant signed it before we began (See Appendix H).

Confidentiality and Security of Data

I took great care to protect the confidentiality of the participants and to ensure the security of the data. Due to the "small world" of Community Adult Learning Councils, no names were included in the study nor ascribed to any of the quoted statements that were used. Participants in the interview tapes were assigned pseudonyms before I gave the tapes to a transcriber. The transcriber for the interviews signed a form that stated that she would observe ethical guidelines regarding confidentiality and would remove data permanently from any hard drives or other electronic storage devices at the conclusion of the study. All the data were stored in my home office on the hard drive of my computer, with back-up disks (several!) stored in another location in my home. WebCT data and the online survey were housed on a University of Alberta server and were password-protected.

Summary

This chapter has described the methods and procedures used in this research study. The research design involved an interpretive study that utilized a multi-method approach based upon practices and assumptions inherent in a qualitative approach to inquiry. My role as researcher and participant in the study was outlined, along with presuppositions and values that I brought to the role of researcher. Participants in the study were identified as 43 Adult Learning Council Coordinators in Alberta and the manager of Alberta Learning's Community Programs Branch, all of whom logged on at least once to CLNOnline during the period of May 1, 2000 to April 1, 2001. Three data collection strategies were described: a review of online postings, a survey, and personal interviews. The inductive approach to data analysis and the criteria for judging the trustworthiness and transferability of the research were outlined. Ethical considerations of obtaining informed consent and ensuring the confidentiality and security of the data were described. The next two chapters will explore the findings of the data through a thematic analysis of the participants' experiences and understandings of the online environment.

CHAPTER 4: FINDINGS - PARTICIPATING IN THE ONLINE ENVIRONMENT

This chapter contains a description of various aspects of the participants' experiences in the online environment as obtained from the interviews, online survey, and review of online postings. As much as possible, I have used the participants' own words to describe their experiences, but in the interest of space have chosen only those quotes that provide the richest description to help the reader see the world through the eyes of those were part of this online environment.

The data are organized into four first-order themes: *Initial Motivations, Reasons for Coming Back, Deterrents to Participation, and Differences Between Newbies and Moldy-Oldies*. The theme of Initial Motivations describes influences for initial involvement of participants in the online environment. A second theme, Reasons for Coming Back, looks at the primary reasons why participants continued logging in over an extended time period. A third theme, Deterrents to Participation, describes the experiences of coordinators that prevented them from participating as they had originally anticipated. A fourth theme, Differences Between Newbies and Moldy-Oldies, describes the different online experiences of those who were new to the position of coordinator and those who had more job experience.

Before I begin to present the findings, I will briefly review for the reader the participants' context as it is central to situating and understanding their experiences. The participants were women who were employed as Adult Learning Council Coordinators in Alberta. Their job involved coordinating part-time non-credit adult learning programs at the community level. For the most part, they worked part-time, usually three days a week, and worked alone in offices in small towns and rural communities. There was a high turnover of coordinators, so there were always people who were new to the position. They had few opportunities to meet with their peers, and were the only people in their communities with their specific occupation. Prior to their involvement in CLNOnline, most had used Internet technologies very minimally, primarily for e-mail and some web searching. It is these women whose experiences are described in this chapter.

Initial Motivations

Participants identified several reasons that initially motivated them to take part in the online environment. The most common reasons included the impact of an isolated work environment, a sense of professional obligation to both the extended community of coordinators and to learners in their own communities, and personal attitudes towards technology.

Isolation of Work Environment

The isolation of the work environment in which the coordinators functioned was a theme that appeared frequently in all three data sources of survey, interviews, and online interactions. The majority of coordinators worked alone in one-person offices in small towns throughout Alberta. Three-quarters of them had their offices in communities of fewer than 10,000 people, and half of those were in very small rural communities of fewer than 5000 people. This physical isolation from their peers served as an initial motivator to reach out and connect with others. Coordinators looked to the online environment as a way to "feel connected and not so alone" and as a means to link them with peers who understood their situation:

> Online it was the sharing and you are a part of it. You are not this little isolated person out there seeking something and having nowhere to go and no one to help you and no one to do anything. So now you are a part of this.

The isolation was both a function of separation by distance – "We're so far out in the boonies" – and of separation by the nature of their job – "No one else in the community does the same thing." Several referred to going online as similar to "going to the staff room for coffee break":

> It was a stress buster to be able to go on there and get a bit of a break and a different view. I often don't get lunch here, let alone a coffee break, so it

> brought a bit of a ray of sunshine into my working environment which is important. It was like a coffee break or a coffee group – you could take coffee any time you wanted to or not at all, whichever you wanted to do.

This recurring metaphor of a "coffee group" revealed both the physical and collegial isolation experienced by so many coordinators who, although they were mostly housed within provincial buildings, school division offices, or post-secondary institutions, felt that they "didn't really have colleagues – just people I share the building with." Most worked alone in a one-person office and were not part of the main employee group:

> Going online was like my morning coffee. Just can't start the day without it. (laughter) I don't have a coffee buddy in this building. They (other provincial building employees) have a coffee room. I even pay a five dollar monthly fee or whatever to do down and have coffee, but I don't do that. They're all in different departments.

Many shared that they were initially motivated to participate in CLNOnline as "a way of connecting because we're on our own here" and because "even our council members don't really know what we're doing in the same way as your peers know." This sense of being alone in the job both physically and conceptually provided an impetus to look to the online environment as a means to "reach out and touch somebody. Just like the old AGT ads."

Professional Obligation

Another factor that influenced some coordinators to participate in the online environment initially was a sense of professional obligation to the other coordinators and to the provincial association that had initiated the project. Coordinators referred to "our responsibility to make this work" and a sense of obligation that "we should be using it to its full potential." The experienced coordinators often referred to wanting to "give back" and help others, particularly those who were new to the position. Many remembered their own lack of orientation and support when they were just beginning, and they saw CLNOnline as a means to "provide a lifeline" for newcomers:

> I think one of the things that made me want to share was the fact that when I came on board there was nobody to help. I was with the previous coordinator one evening, and that was my orientation. I came on in November and there were all those government forms to do in January. There was no one to help and that is why I like to respond when I can and I thought, hey, someone could have done that for me and I'm giving back.

Another sense of professional obligation was towards their Councils and the learners in their communities. Some coordinators, particularly in rural areas, looked to CLNOnline as a way of personally experiencing online learning so that they could help distance learners in their communities. They anticipated that distance learning would play an increasing role in adult education, and felt "if I tried it myself I might better be able to help the staff and the students that come in here to do distance learning."

Attitudes Towards Technology

Personal attitudes towards technology initially influenced coordinators' willingness both to participate initially in CLNOnline as well as the extent to which they continued to take part. Many expressed a belief in technology as the future, as "this is the way we should be going." This faith in technology was heard over and over in such statements as "I knew it was good for me" and "I felt like I needed to know more about some technology." Some viewed this experience as an opportunity to learn new technical skills:

> On a professional level I knew that this was a good way to go. Part of it was that, man, if I don't take advantage of this opportunity to learn how to use this, then I'm really wasting an opportunity. Because some things I haven't done. I haven't done any learning online. I think that would be cool. I'd like to learn how to do that. There's a lot of things I haven't done and this was an opportunity to do it.

This chance to "try something new" combined with the well-hyped allure of the Internet as a future educational delivery mechanism was reaffirmed by another coordinator:

> I thought it would be a really neat thing to do. Rather yuppie. And just to say 'I've done that.' You know, to add it to your resume and to add it to 'I've tried that and gone there and done it.' Then we can say we are right up there when it comes to keeping up with technology, and since we promote lifelong learning we'd better get with it.

While some coordinators were motivated to take part in the online environment as a means to attain new skills and to "get with it," the opposite scenario also existed where those who were already comfortable with technology were motivated to take part because this new environment was a natural extension of their existing personal or professional practice. Previous online experience, particularly the use of e-mail or listservs, provided a comfort level for some coordinators that made them more willing to become involved. One coordinator made the observation after a training session with her peers that "there was an absolute division of people who use e-mail and people who don't." Another coordinator, who had no previous Internet experience herself, was influenced by her Council chairperson's enthusiastic endorsement of the technology's possibilities:

> She thought this was going to be a wonderful, wonderful opportunity because of her dealings with computers and Internet and the whole nine yards. When she heard this was coming she was so excited about it and then she came to the board meeting and said now we've got to get e-mail and Internet. So that was the jumping off start for me to get this stuff. In the beginning I was really leery – like I didn't have a clue.

Several coordinators referred to themselves as "getting older" and expressed a desire to "try to keep up" and "keep moving to the next thing." Many mentioned other family members' use of technology, with some wanting to help their children with school work, and some wanting to send e-mail and pictures to parents and/or grandchildren. While some referred to their husbands as "not even knowing how to turn the computer on," one acknowledged that she was influenced by her spouse's interest in technology:

> My husband is really interested in technology so he kind of spurs me on. He brings home a new toy and I'm like 'how does that work?' (laughter) He's got much nicer toys than I have, though.

Another emphatically did not want to succumb to becoming "the stereotyped woman who lets her husband or children deal with technology."

In summary, the main themes that motivated coordinators to participate initially in the online environment were the impact of an isolated work environment, a sense of professional obligation, and personal attitudes towards technology. The combination and interplay of these various factors meant that each participant brought her own motivations, expectations, and reservations to the experience.

Reasons for Coming Back

It is one thing to be excited initially about participating in an online environment; it is quite another to continue participating over an extended period of time. Despite the fact that the majority of the coordinators (74%) worked less than 25 hours per week, half of them said they logged in to CLNOnline at least once a week, with one-quarter logging in at least once every working day. At the other end of the scale, approximately one-quarter (23%) logged in less than once a month. Those who continued to participate on a regular basis said that they had two primary reasons to keep coming back – to gain information that was helpful in their work and to maintain connection with their peers.

"It made my job easier"

Many coordinators continued to use CLNOnline as a source of information or ideas that they could use in their own job situations. They found it helpful in finding ideas for courses, names of instructors, professional development opportunities, and ideas for Council administration such as policies, procedures, bylaws, and fund development. Due to the fact that most of them worked part-time and work alone, the convenience of connecting with others who were dealing with similar issues was valued:

> A lot of why I posted and asked questions is just because I'm so busy and I've got so many irons in the fire that if someone can give this information I really, really do not want to reinvent the wheel. It's like the learning centers. There's eight people developing learning centers. I just can't see every person going off and doing that. And that's what I really liked about online. If someone's been there and done that, I don't want to spend two or three days searching this or trying to find this answer. If you've got it, even if I have to wait a week for the answer that's okay. Because I won't get to it myself until then anyway.

This ability to problem-solve and seek advice from the whole group was a recurring theme, and was especially valued by those who had exhausted their local resources or who did not have an established network of work-related contacts:

> Problem-solving and brainstorming are so easy with the forums – just post a question and you get many answers and viewpoints. You don't have to know who to call, as you can just put out a general inquiry to all coordinators. Also you get information about questions that you did not even ask – perfect.

Even for those who "did know who to call," many felt that asking questions online was less invasive than asking by phone or direct e-mail, perceiving those methods as "being in their face and they may not have the time or may not want to discuss that with you." Coordinators participated in the online environment, even if they were only reading but not posting, to "pick up ideas" that they might use or modify for their own situations. When CLNOnline closed temporarily at the end of its first year, many expressed feeling that they had lost a valuable work resource:

> Now that it's not there, we're not there, because it's shut down. There are so many things that have come up that I wanted to get online to ask, to discuss, to talk about, and I can't. I haven't decided how I'm going to get that information now. I don't know if I'm going to get on the phone, if I'm going to e-mail which means I'm going to have to look each person up or try to find out who is working when, who has done a project like this…

Many coordinators indicated that their expectations of the online environment as being helpful to their job shifted over time and consequently their motivation to participate changed as well. Initially many were unsure that the online environment would be of value in their work, whether it would be worth their time to become involved, and they anticipated that it would be "a nice diversion when things were slow at the office." As time went on, they came to view it as a valuable work resource which motivated them to keep participating. One coordinator summed up this shift in perception by saying "I can't imagine work now without this tool."

Isolation and Connection

The isolation of the job that was an initial motivator also continued to be a factor that kept coordinators participating over time. There were repeated references of "feeling connected to other coordinators," "being connected emotionally" and "taking away my feelings of being the only one." The coordinators who logged in regularly shared a desire "to see if something was happening" or "the proverbial you don't want to miss anything." Going online "felt like talking to somebody" or " sitting down and having a chat," and one coordinator compared the disappointment when there were no new daily postings to "going to the candy store and finding the jars are all empty." This sense of connection was so strong for some that when the online environment closed temporarily at the end of its pilot year, many referred to "a sense of withdrawal," of "feeling really torn," and of "having this big hole since there wasn't this place you can go to and check and see what everybody is doing or what's new or whatever." One coordinator, who had worked for several years in her solo job and who viewed herself as "not much of a social animal in terms of work" was surprised by the emotional connection she felt through being part of the online environment:

> I did not anticipate the sense of community I felt when using CLNOnline. I remember days when I would be sitting alone in my office laughing out loud at things other people had written that were funny. And feeling connected to people. So part of it was an emotional thing.

In summary, the two major themes underlying coordinators' ongoing participation in the online environment were that it was helpful to their work and that it provided a sense of social and emotional connection which eased the isolation of working alone in a job that was shared by no one else in the community.

Deterrents to Participation

Anyone who has instructed or moderated online often wonders why more people don't participate or why people don't participate more. In this study, the coordinators cited three main deterrents to participation. Coordinators repeatedly stated that a lack of time due to competing priorities was the greatest single deterrent affecting the extent of their participation. For some coordinators who were interviewed, technical issues –slow bandwidth, older computers with limited memory or processing power, and their own limited technical skills – affected their participation in the online experience. A third deterrent to participating was not having any relevant experience or information to share.

Time and Good Intentions

Overwhelmingly, a lack of time was identified as the most common deterrent to participating in CLNOnline. Many coordinators noted that it was "challenging to find the time for it" and that "other priorities" and "more pressing things to do" impacted how often they went on line and whether they took the time to post or not. This time deterrent was identified by those who worked part-time and those who worked full-time. The time of year also made a difference, since the seasonal nature of Council programming meant that some months were even more demanding than others. The time of year also made a difference, since the seasonal nature of Council programming meant that some months were even more demanding than others:

> I consciously went in twice a week because I really enjoyed it and found it really interesting. It was a priority. But when the real tsunami of work hit (laughter) I wasn't able to keep up. I felt like when February 15 hit, which is when the annual reports come in, like I just kind of dropped off the planet in terms of what was going on with CLNOnline. And I did notice it. I missed it.

Coordinators often spoke of having "good intentions" to carve out time to make postings or respond to others, of "feeling guilty" when they weren't keeping up, but often only having the time to "go in and take a quick look around." One full-time coordinator empathized with the workload of her part-time peers:

> I'm in a little bit of a unique position in that I have some staff now so I don't have that huge day to day load that everybody else has so I have a little bit more time to respond to people. But even though I'm in a little bit different position now, I have that understanding of doing all the programming, all the accounting, all the desktop publishing, working nights and all day Saturday at particular times of the year to get the job done.

Despite the asynchronicity of computer-mediated communication which provided the potential for people to participate at any time, not having enough time was still cited as the major reason why participants either did not log on as frequently or did not post as often.

Many coordinators spoke of the importance of developing routines or patterns as a way of dealing with the time factor. Unlike a listserv, where messages are "pushed" at the recipient through regular e-mail, coordinators had to make a conscious effort to access CLNOnline through their web browser. Since it was "tricky to find the time," many individuals worked out a pattern that suited their own schedules. These patterns ranged from "first thing in the morning I would listen to my voice mail, read my e-mail and then check into CLNOnline" to logging on at home in the evenings:

> I used to try to look at it first thing in the morning but usually there were more pressing issues to do. At the end I started to look at it every evening at home. And I found that worked really well. If you could come to my house on every evening you would see me curled up on my chair with my laptop on me and I am just watching the TV and doing my e-mails. It's so enjoyable.

Many coordinators "didn't start with a pattern" and "kind of got on when I could," but developed a more regular routine as they began to see benefits from the time spent online:

> At the start I was concentrating on my priorities here in the office rather than getting into using it. So I would just check periodically every couple of weeks or even once a month when things got kind of hectic. But the more I was on it, the more information I was seeing and the more I would try to be more faithful…The more I become comfortable with it, the more I used it, and the better I liked it, the easier it was so it became a greater part of the routine.

Establishing a pattern required a commitment which one coordinator expressed as "I had to reschedule my thinking and retool my practices to make a point of doing it." Many shifted their pattern over time and went online more regularly as time went on. When the pattern became integrated into their work, they said that participating "only took a few minutes a day." Those who never did establish a schedule logged on less frequently and spoke more of being "overwhelmed with messages" when they did go online.

Technical Limitations

Coordinators who faced the "double-whammy" of a slow computer and a dial-up Internet connection experienced the greatest technical deterrents to participation. One coordinator vividly described the experience in her one-person office situated in a rural small town:

> I have a slow computer and it was a slow process just getting into it. The connection is also really slow – it's on a telephone line and we only connect at 24. So I start to boot it up and go on to connect and I'll go down and get coffee while I'm waiting (laughter)…Sometimes it would take so long my computer would forget what it was doing and then it would stop. So I would go get some more coffee! It just seems that I don't do a lot of stuff that takes a lot of time on machines because I have other things I have to get done. So if I get a faster connection I think I would probably be inclined to hit it more frequently because you know there was always something interesting on there.

The dial-up connections in many rural areas with "those blankety-blank modem noises and always getting disconnected" and problems where "my computer and Internet provider don't always see eye to eye" posed a deterrent to participation for some coordinators. One who was attempting to make do with a five-year old computer and a dial-up connection posted an ongoing saga of her frustration with her computer freezing. After her Council obtained a lottery grant to purchase a new computer and subscribe to high speed Internet, she described the joy of her altered experience:

> I'm in seventh heaven right now. I have a new computer with 128 MB and a 19 inch monitor. I now have bells and whistles that I don't even know what to do with. It is amazing – I don't have to close all my programs to go on the Internet!

Only one coordinator identified herself as a "two-fingered typist," and she reflected that her slower keyboarding really only impacted her participation in the fast pace of live chats. Thus technical limitations, primarily bandwidth and computing power, presented some deterrents to participation. As one coordinator described the situation " If I had to go into a dingy room with an old computer and go like this (imitating hunt-and-peck typing), I probably wouldn't do it."

"Nothing to offer"

Several coordinators mentioned that a lack of experience or "nothing to offer" presented a deterrent to their participation as measured by active postings. Many new coordinators did not actively post because they felt they lacked specific experience to share:

> I was new so I was very picky when I posted. It's like if I don't know that much about something I'm not going to go put something online…With that one particular response I made, I kind of had a little bit of a comfortable feeling with regard to replying to it because I've had to deal with Board meetings and that kind of thing and so anyway I thought, well, okay, I'll put my two cents in.

Other coordinators indicated that they "didn't want to waste other people's time" by merely concurring with the ongoing discussion by "echoing things I was thinking so there wasn't any point of contributing anything in that respect." This awareness of others' time influenced some coordinators to hold back on actively posting:

> So you kind of pace yourself and say OK, enough. (laughter). I tried not to respond every time I could because I thought people are going to think 'You know this is our time too.' That is the hard thing because usually I felt, hey, I could throw something into this and I thought it is not necessary all the time. You know whenever you are in a group you don't always have to talk.

One participant compared her active participation in CLNOnline with her silent participation in another online group that centred around a different industry:

> I was a lurker in that other environment because I couldn't really respond. I mean it was quite technical. But yet I found it interesting. It did inform me, but I don't have the expertise. It was like they were sharing things where I felt I had nothing to offer.

This lack of expertise and reluctance to dominate air time affected the extent to which coordinators actively posted in CLNOnline. Many, however, maintained that even though they remained silently in the background, they were still participating by checking in and reading the postings. They appreciated this ability to be part of the experience without being front and centre.

In summary, participants cited a lack of time, technical limitations, and a lack of experience or information to share as factors that hindered the nature and extent of their participation in the online environment. They referred to these factors as deterrents that slowed down or impeded their participation rather than as barriers that were insurmountable.

Differences Between Newbies and Moldy-Oldies

Participating in the online environment seemed to be a different experience for new coordinators than for those with more years of experience in the job. Historically, there is a pattern of high turnover in the position of Council coordinator, and over half of the participants had been employed as a coordinator for less than five years. Almost one quarter were "newbies," having been employed for less than a year. Less than one third had been employed for more than 10 years, and these experienced coordinators were fondly referred to by one as "us moldy-oldies." The motivations and online interactions differed for these two groups.

Newbies

While "newbies" is a term that is often used in Internet culture to refer to people who are new to the online experience, "newbies" is also a term used affectionately within the provincial coordinator community to refer to the new coordinators who are constantly appearing on the scene to replace coordinators who have left. These newbies had a greater tendency to "lurk" on CLNOnline, reading the information but not actively taking part in the discussion. One new coordinator expressed this background or silent participation as "at first you kind of back off and just sit and watch," while another referred to herself as "basically a voyeur…I wanted to just stay low key and view what's going on." Many wanted to "just see what was going on and not be part of it" and expressed some anxiety about venturing in to this new environment:

> I was just hoping not to make a fool of myself online. Being new, when you do say something you don't want to be sounding stupid or way out in left field kind of thing. And you don't want to come across like you know everything too.

When new coordinators did make a posting, they were most apt to ask for job-related information. Many felt that they did not have enough relevant experience to share as responses to others' requests, but they kept logging on to find information that would assist them in their work:

> Since I am new in the position of Coordinator, I have not offered much to CLNOnline as far as actual postings. However, I have found that CLNOnline has been helpful as far as identifying problems that other coordinators are having and their solutions and applying this information to my workplace.

New coordinators who had previous online listserv experience found it easier to break into the group, since they were aware of the "rules" of such online environments:

> At first you sit back and learn and watch, but then you start to get into it. You sort of step in there because that's the only way you're going to find out and learn and meet people.

In general, the new coordinators tended to stay in the background and only post to ask job-related questions, whereas those who were new to the job but who also had previous online experience participated more actively in the discussions.

Moldy-Oldies

The "moldy-oldies" who had more job experience and especially those who identified more closely with the provincial coordinator community tended to differ somewhat in the nature of their participation in the online environment. Whereas the newbies were primarily looking for information, when the experienced coordinators made a posting they were more often offering information or providing collegial support. Over time they had developed their own networks and resources, and, unlike the newbies, "had other ways to deal with burning issues." Because of their experience and connections, they could "pick up the phone and call somebody that is in a similar type of situation." Some referred facetiously to "being old" and no longer needing "to be looking for earth-shattering assistance." While they, too, valued the information sharing and problem-solving that went on, they spoke more of the social connection to peers. This social connection was both reaffirming and motivating, which in itself became connected to work:

> I think for the most part what it gave to me was more of an emotional boost in terms of my job. Like in the same way as when you go to a conference, you come back feeling motivated because you have talked to your colleagues and workers. And the online environment did that for me more than any practical day to day kind of thing.

A recurrent theme for the more experienced coordinators was their participation in the online environment as a way to help the newbies who were just figuring out their roles. Because there is only one Adult Learning Council in any community and the Council members are mostly unaware of the day-to-day job functions of the coordinator, many coordinators received minimal training and orientation when they started. As one recalled, "It was like, here's your office. Park out there." Many had worked in the job for months before they met any other coordinators or even realized they were part of a provincial network. Those memories were vivid, and coordinators felt "more compelled to respond if people were new because obviously they needed the help." Many empathized with their less-experienced peers, and viewed the online environment as a means of orientation and support:

> I think it would have been much easier to ask for help if CLNOnline had been there when I was a beginner. When I started, I didn't know anybody and I didn't have that sense of community. I felt like, when I went to conferences there were all the people that knew each other and then there were those of us who didn't. If there was something that I should have known, I didn't feel like I could ask the Branch for help and I didn't have enough relationship with my peers so I couldn't have asked them either. I think CLNOnline removes those deterrents because you're not so vulnerable as face to face.

In summary, the experiences of new and more experienced coordinators in the online environment differed. Coordinators who were relatively new to the position tended to stay more in the background, picking up information by lurking or asking specific job-related questions. Coordinators with more experience were more apt to voluntarily share information, to respond to the questions of others, and spoke more intensely about using the online environment for collegial support.

Summary

This chapter has described participants' initial and ongoing involvement in the online environment. Initial motivations for participating included the impact of an isolated work environment, a sense of professional obligation, and personal attitudes towards technology. Those who continued to participate cited that the online environment helped them in their job and provided a social connection to peers. Deterrents to participation included a lack of time, technical limitations of hardware and Internet connectivity, and a lack of relevant experience or information to offer. Those who were relatively new to their position differed in their motivations and participation patterns than did coordinators who had more job experience, with the "newbies" often lurking silently in the background or looking for specific job-related information and the "moldy-oldies" using the online environment to share information, provide advice and collegial support, and as a social connection with peers. Relationships of professional support, social exchange, and a sense of belongingness were in evidence.

CHAPTER 5: FINDINGS - UNDERSTANDING THE NATURE OF THE ONLINE ENVIRONMENT

Chapter 4 described the experiences of participants as they took part in the online environment. In this chapter I will describe how the participants understood the nature of the environment itself. From their point of view, what was this "place"? How did they visualize it? What did it represent for them? What conceptual frameworks and metaphors did they use to make sense of their experience?

The data in this chapter are organized into five first-order themes. The first three themes represent the most common conceptions of the online environment – *A Tool for Work, A Place for Learning,* and *A Social Community.* Within the first theme, A Tool for Work, sub-themes of communication with others and the use of technology itself are explored. The second theme, A Place for Learning, discusses how participants visualized the online environment as a place to learn technical skills and to learn about matters related to their job. The third theme, A Social Community, identifies attributes of community which participants associated with the online experience. The fourth theme – *A Real Mixture of Work, Social Connection, and Learning* – discusses how participants could not separate the key concepts of work, learning, and community as they tried to explain the nature of the online environment. The fifth theme – *The Role of the Moderator* – explores participants' understandings of what the moderator represented in this experience.

A Tool for Work

Both survey and interview data suggest that coordinators viewed the online environment as "a tool for work," where "everything was centered around work for the most part and helping us in our work environment." They saw the online environment as enabling them to communicate quickly and easily with others in similar jobs, and they also viewed the technology itself as a tool to make their work easier.

Communication and Problem-solving

Coordinators visualized the online environment as a tool they could use to communicate with their peers and the Community Programs Branch of Alberta Learning. They spoke often of being able to gain information about Council policies and procedures, ideas for programming, and "lots of little things that worked." The online environment was referred to as "a sounding board," where people shared what worked and didn't work, and where coordinators could ask a question of the whole group and receive answers from diverse perspectives. They frequently mentioned this ease of access to information and group wisdom, referring often to using it for "a lot of problem-solving things." They used information from each other's postings and the group online polls to initiate change in their own communities:

> It was a tool for me to come back to the board to say, you know what, most other councils shut down for the summer. Or the basic salary is so many dollars per hour or whatever. I used it to get ideas of what our community could do.

The presence of Alberta Learning also contributed to framing CLNOnline as a work environment, and gave a heightened sense of credibility to the experience:

> The policy questions from the Branch were helpful for work. _____ would come on and answer and that was really helpful. And that way you got the information just once. It was there, you didn't have to phone ____ yourself and sometimes there were things on there that I hadn't even thought of. I know there were a couple of things that she posted and I thought, oh, man, I didn't know that. Her role on there was really helpful. Because there are questions out there that she is the one that can answer them. And you know when it's coming from her, it's gospel. Coming from somebody else it might just be their take on it.

Technology as a Tool

In addition to providing a communication tool enabling them to connect with peers and Alberta Learning, many coordinators were excited about how the technology itself was helpful in other aspects of their job. While two-thirds assessed their own computer expertise as "good," their experience was primarily with word processing and stand-alone machines. Most had very limited Internet experience. Those who had not

previously used file attachments often spoke of the "sheer convenience" of being able to access documents that had been created by their peers:

> _______ had put on a copy of their policies, and that was terrific. Because at that time most councils were looking at redoing things so it was a great thing. I peeled the whole thing off. And I, now this is the non-techie part of me here, I printed lots of things. I've got a whole binder full of stuff that I printed. It's in my little gray book. It's got a stickie on it so I know it's there. So when I want to go back, I can find it. I'm still pretty print-based. It was just easier to peel them off, the stuff that I wanted, and put it into my little book.

Many who were used to working on hard copies of documents found it "a treat" to work with electronic files, and shared that "it sure saved a lot of work by being able to pick that up as an attachment rather than having to try to answer this thing by writing the answers in or typing it all over." This ability to share and modify documents began to be integrated into the group's working culture:

> Sometimes we'd be talking about things and somebody would say "well I'll put it on WebCT for you" and then you could get it off that way.

Many participants were particularly excited by live chat as a technology tool in a work environment. Live chat was a new experience for all participants, although some had watched their teenagers use chatrooms and wondered "where's the point in that?" Initial chaotic attempts to use live chat were remembered as "a total hoot," "just way too much fun," and "the funniest thing I've ever done." Some visualized live chat as "having a table full of people who were all talking at once" but after they "got over the goofiness of it all," they learned to adapt this tool to their specific work purposes, primarily as a planning tool:

> I thought chat was quite productive because we basically got our agenda together for our regional meeting. We went back and forth and brainstormed ideas. I had e-mailed people earlier to let them know what we were going to talk about. So I learned how to organize it, you know. We kind of chatted how's it going and then we got down to figuring out our agenda.

Participants understood the online environment as a tool for work where they could access and share practical information, and could have a line of communication with Alberta Learning. This allowed them to "communicate faster and more efficiently with other coordinators when I wanted ideas or help with a particular problem." They also viewed the technology itself as a multi-faceted tool that made some aspects of their work easier and more efficient, although one coordinator wryly observed that "while technology can simplify your work it also has a way of complicating it as well."

A Place for Learning

Besides being a tool for work, others thought of the online environment as a place for informal learning. The most common learning outcomes were increased technical skills and increased awareness of job-related information. While participants anticipated both of these outcomes to some extent, there were also unanticipated or incidental learning offshoots stemming from their experiences. Foremost among these were an increase in computer self-efficacy and an increased awareness of larger provincial and global contexts.

Increased Technical Skills

Many coordinators were originally motivated to take part in the online environment because they anticipated learning new technical skills. They wanted to learn more about the Internet and to experience online learning. Since coordinators live in the world of non-credit learning programs, the fact that CLNOnline was not a formal distance education course did not lessen their perception of it as "absolutely a learning environment. Not solely a learning environment, but it absolutely was one."

Participants anticipated "learning how to use the technologies to have a comfort level with it." They learned new technical skills through their experience with CLNOnline, with the most frequently mentioned skills being the use of live chat, posting to forums, handling file attachments, downloading documents, participating in online polls, and improved web searching. Understandably, the extent of their learning was related to their previous technical expertise. One experienced coordinator who referred to herself as a "techno-dummy" described her experience this way:

> I got better at it through using it. I still ran into holes where I didn't know what to do to get out of it again. But overall in lots of ways – now this is coming from a non-technical person – but I think I'm getting better at this.

Participants found it useful to learn these technical skills within a job-embedded context. Being part of the online environment provided a context that "forced me to use the Internet." One referred to "picking up the skills by using them":

> It was definitely a learning environment. I think a lot of useful skills were learned – particularly again for those of us who are in rural areas. You know picking up the skills by using them. Just in terms of our own work and making us more efficient. Like learning to download a document and being able to send it via e-mail. Send things to the Branch or send in proposals or whatever. It's really changed the working environment.

An offshoot or unanticipated outcome stemming from their experience in using the technology was that many participants attained an increased sense of computer self-efficacy. Bandura (1997) defines self-efficacy as a belief in one's capabilities to organize and execute the courses of action required to attain a goal. Within social cognitive theory, self-efficacy is a form of self-evaluation that influences decisions about what behaviours to undertake, how much effort to put forth when faced with obstacles, and finally, the mastery of the behaviour. Self-efficacy is not a measure of skill but rather a reflection of what people believe they can do with the skills they possess. Many coordinators spoke of "being more comfortable with venturing forth" and "just a confidence thing." This increased sense of "I can do this" was expressed by one coordinator who had no previous Internet or e-mail experience:

> This might be kind of silly but I learned to kind of go ahead and do something and not be afraid to work with it. Because I'm older and some of these things – when you see your grandkids just go in and do things you think "you can't," "you'll never be able to do that." I learned that I can go and take part and I can be involved and do it. I don't think I would have gotten into it without CLNOnline. CLNOnline made things a little better for me. It did; it really did.

Another expressed it somewhat differently:

> It has increased my view of my capability. Yes, I can find information in less than half a day; yes, I am willing to try and find the information; and yes, it is a tool that made my job more enjoyable.

Coordinators shared stories of "getting up the nerve" to use the Internet for shopping for goods, obtaining commodity pricing, and researching health related issues. They felt more confident in helping their children "use Google to search for winged dinosaurs." Some went on to arrange for Internet access at home and to buy new equipment. One spoke of the new scanner sitting on her desk:

> I haven't a clue how to use it. But I'll learn. Initially it was sort of like, I'm the kind of person who had to know how to do everything right now. But now I just get on there, do it, try it, and you might not do everything right the first time, but just get in there and take the time. I had to get my head in the right place.

Another unanticipated outcome that arose from participants' experience in the online environment was a new understanding of the potential impact of Internet technologies on the lifestyle and economy of rural communities. One coordinator who had been involved in developing a proposal with her peers online spoke of this increased awareness:

> Doing the proposal together was a really good experience. That for me was the essence of this. It really showed how you could use an online network. The scope of that implied that you could work anywhere and accomplish things. It isn't any longer necessary to actually be somewhere. Experiencing that made me realize you could do mentoring or consulting or whatever using an online environment. You could be sitting there in your bunny slippers.

Others spoke of how their personal experience using CLNOnline gave them a greater "sense of vision for how this could be used in our community," particularly for educational delivery:

> I can see now how this can be used as a learning environment at a distance, and being able to learn at your own convenience. It is the way things will go in a rural community. Face to face will always be important, but when you live at the start of the road into Alberta…

Another coordinator with several years of job experience but very limited Internet skills viewed the online environment very clearly as a place for learning, and reflected upon how her experience had increased her sense of competence and her conception of the technology itself:

> I now feel much more comfortable about it. I can see and have experienced practical applications where before it was just one of those technical possibilities that other people did. As in the famous utterance of the Monkees, "I'm a believer."

Job-related Learning

In addition to learning technical skills, coordinators conceived of the online environment as a place where they would learn procedures and information that would be helpful in their work. It is an established precedent for the coordinators to have a "sharing time" at their annual provincial conference, where they learn from each other by sharing programming ideas, learning needs in their communities, and challenges facing their Councils. They expected to learn similar things in the online environment because they envisioned the technology as enabling this type of sharing to occur. They spoke of learning about instructors, courses, policies, community learning centres, writing grant proposals, and "some things that are a big hit in places and some things that are real bombs." They envisioned the online environment as a place where they could learn by asking specific questions related to their work, and they found this to be the case:

> I know I have learned lots, finding interesting and unexpected information, sources and resources. Coordinators are a sharing lot: they share the good and the not so good. Knowing more about what the rest are doing and how they are doing it both validates and motivates me. I learned great ideas and tips from CLNOnline that I might not have picked up because they came from outside of my usual haunts.

A recurring theme was this ability to "learn just by reading people's messages," of learning from both the questions and the answers, and in general "just absorbing a lot of incidental information that might come in handy at some point."

An unanticipated learning outcome from sharing job-related information was an increased awareness of the larger provincial context of Councils and community adult learning in Alberta. While all 84 Councils are governed by the same Community Adult Learning policy, there are also 84 different ways of operationalizing that policy, resulting in significant differences in the nature and function of each coordinator's job. Many reflected that the online environment revealed "a universality in the whole group" and "emphasized our similarities" while being able to "take a quick pulse on what's across the province." Several references were made to "being all in the same boat" and "on the same journey." While coordinators looked to the online environment as a place where they could learn about job-related information that would help them in their specific situation, they did not anticipate how much they would gain an awareness of the "bigger picture" through communicating with others "out there."

In summary, participants understood the online environment as a place for learning, where they learned both intentionally and incidentally. They learned technical skills by using the technology in context, and they learned work-related information both intentionally through asking questions and unintentionally by "lurking." Incidental learning outcomes included an increase in computer self-efficacy and an increased awareness of larger provincial and global contexts.

A Social Community

For many participants, the online environment represented a social community, a "safe place" where they could find support and affirmation. Sub-themes or elements of this social community included identifiable boundaries, common interests and experiences, and a sense of caring and support. The recurring coffee room metaphor expressed by coordinators in both the survey and interview data captures these attributes of community:

> For us, online was the equivalent of a coffee room. We work in isolation, whereas other people have their coffee room or the lunchroom or the water cooler or whatever and we don't. If you're a teacher, you go to the staff room and everybody's teaching. They have that same shared professional body of knowledge and experience. They don't have to explain their job. Online was like a coffee shop where you have conversations that are work related, social related, political, idealistic, you know you have all those conversations. And it was a forum for those kind of conversations that are hugely variant.

Identifiable Boundaries

Unlike many online discussion groups or listservs, CLNOnline was a closed environment where only coordinators and Alberta Learning staff had password access. Coordinators appreciated these boundaries since they felt comfortable to discuss problems since "everybody who comes on knows what you are and who you are and you don't have to explain. You don't have to explain at all." They did not want "every Tom, Dick, and Harry knowing what we're talking about," and spoke of the "comfort factor" in knowing that everyone in the online environment "was similar in what they do, what their issues are and what their worries are." The boundaries provided a sense of trust that helped to make it a "safe place":

> It's an identifiable community. E-mail's a bigger picture – you get e-mail from people you don't know or don't trust. It's not threatening in this

> environment. You're not vulnerable because it's a community. It's identifiable. The people on there are identifiable. You know who they are. You have relationships with them. And they have relationships with you. They understand you and your work environment.

The closed boundaries of CLNOnline provided a "framework for the group and pulled those people together" which "sort of bridged the gap between all of us and made a tie between us."

Common Interests and Experiences

When coordinators spoke of feeling part of a community, they often referred to sharing common interests and experiences. Primarily they shared work experiences and problems, asking for and receiving advice and support from their peers. For many, the affirmation or "just that acknowledgement that others were struggling with similar issues" was as important as any actual solutions or suggestions that were shared:

> It seemed like it didn't have to be a monumental solution. I think what I saw online was a lot of comfort in people sharing whatever it was that worked for them or whatever they had. It seemed that people were sharing what they had to offer and it didn't matter if it wasn't the big fix or something like that. It was lots of small little things that worked.

This sharing and problem-solving added to the sense of community, where coordinators "felt like it's a safe place to go and vent or whatever you need to do to people who will understand."

Despite the fact that the majority of online discussion centered on work, when participants in the interviews reflected on discussions that stood out for them, they frequently spoke of "the Christmas stories." "The Christmas stories" was a discussion thread stemming from the moderator's suggestion that people share their Christmas experiences. Participants felt that this social sharing added to the sense of community:

> I really enjoyed the Christmas stories. Because it gives you a personal picture. You know it paints that picture. And it probably changed some of

> the pictures a little bit, too. I shared my Christmas story because I guess I feel part of the group.

In addition to the Christmas stories, participants mentioned the biographies forum and the immediacy of live chats as adding to the community feeling of the online experience. Through sharing their biographies, coordinators learned about interests and experiences that they had in common with their peers beyond the job function. They enjoyed sharing the experience of live chat, both the humour inherent in the frantic pace and fractured flow of the discussion as well as how the chat technology itself allowed them to share experiences about completing government forms, planning programs, and assessing community needs.

Caring and Support

A third theme involved the sense of caring and support that coordinators associated with community in this online environment. They spoke of "sharing the ups and downs" and "having that sense of empathy and wanting to help." Repeatedly coordinators spoke of one story that illustrated this community caring and support. The "Council crisis" story involved a coordinator who was new to her job and who had met only two of her peers, but who posted a message online outlining a crisis in her Council which was causing her great stress. Her peers responded with several postings offering both social support and practical advice. Both those coordinators who responded to her posting and those who just observed the ensuing discussion thread reflected on the support that was provided and that fact that "someone would feel comfortable enough to put that online." One coordinator remembered her response:

> The story that really jumps out at me is when somebody wrote in and they were having problems with their Council and were having a bad time. I remember responding right away to that. It just felt like it was really important. The person seemed really isolated and probably couldn't talk to anybody in their community about what was going on. So I remember responding to that right away. I can't really remember if I had a concrete answer to the question, but I dealt with it.

Interestingly, not having a "concrete answer" was not that important to the coordinator who had shared her problem, for she valued the community support she received more than any specific advice:

> That event had been so upsetting. It was nice to hear other people's takes on that. If nobody had a really strong answer for me, at least they would feel for me. I got a lot of "feeling for you." And suggestions – minor suggestions. I mean there was nothing you could really do about it.

In summary, participants visualized the online environment as a social community that had identifiable boundaries, consisted of people who shared common interests and experiences, and provided comfort, support, and affirmation for its members. Coordinators were divided in whether they conceived of the online environment as a separate community or whether it merely supported a community that was already in existence. Some who participated most actively online and spoke most intensely about the supportive social dimension of their experience were not active in the physical provincial community in terms of attending conferences or serving on boards or committees. While all participants agreed that meeting face-to-face strengthened the online relationships, for some this was more important than for others in feeling part of the community. The geographic isolation of the coordinators meant that "we're always dealing with distance as an issue," and while they appreciated meeting face-to-face to "put the names to the faces," it was not an absolute requirement for understanding the online environment as a community. CLNOnline represented "a chance to be pulled together on a daily basis if we so chose and so the support came out." One coordinator spoke of "living community in a different way":

> I think we had a community already and this was an expression, was a way of maybe living community in a different way. Being connected to that community in a different way. The support. The ability to be kind of real. Whether it's ______and her experience with her board or whether it's _________and her experience with her computer, it's just the real stuff that people are struggling with. Even asking the questions. I mean, it's difficult to say 'I don't know how to do this' or 'who should I be getting for this?'

> Any time we ask a question I think there's vulnerability so that's what makes it real stuff. People are being vulnerable and then receiving the support they need.

A Real Mixture of Work, Learning, and Social Connection

To the participants in this study, the online environment most commonly represented a tool for work, a place for learning, and a social community. While different participants put varying "weight" on each aspect, they could not separate the different themes. In their experience, they did not regard CLNOnline as any one thing, but rather as an integrated conceptual space where they could work, learn, and play. This understanding aligned with their experience coordinating lifelong learning opportunities in their communities, where learning took many forms such as organized courses, garden tours, book clubs, community conferences, and support groups. As one coordinator phrased it, "all parts of the mixture have to be there or your cake's going to fall."

In trying to explain the nature of the online environment, coordinators would often try to assign a specific "fit" but got caught up in how the pieces interacted with each other:

> It was work and learning. And a bit social. Mostly work. Or maybe it was mostly learning. It was learning but it related to the work I'm doing.

Some did not even try to make separate distinctions:

> It's all. I don't see how you can divide it. Wanting to see who was posting – that's social I think. And the live chats. And it was social for me too, just getting on and seeing what was happening. It was a learning environment. I mean for myself I learned about, not only the technology, but what was happening out in different communities, what people were struggling with, learning about, so all that's learning. And it's also work in that there were postings about community learning centres, postings asking for information about forms and things like that.

Many were insistent that the social component was an essential ingredient of this cake's "mixture" in order to provide the leavening for the work and learning to take shape:

> You have to have all components. It's the social part of it that makes it more effective for the learning and the work. I believe absolutely that if you don't do the community building and if you don't have the social aspect then people aren't going to invest in it as a working environment and a learning environment. Because it's that comfort level that you achieve through the social aspect that makes it most useful for work and learning.

The manager of the Community Programs Branch integrated all of these components – work, learning, and social – into her conception of CLNOnline as a community of practice that provided a forum for continuous improvement and collegial support:

> I think the online environment is a community of practice. A community of practice is inviting but you don't have to be there. You share best practices or ideas. People are there because they want to be there and they're looking for ways of improving and helping each other and supporting each other. It's not outwardly driven, you know somebody standing over you with a stick saying 'you must.' And I felt like that's what this was. We were encouraging but I don't think we ever said 'you must.' It can't be mandated and so I'm actually quite proud that we created an environment that allowed it to happen. Because that's all we can do.

In summary, participants regarded the online environment as a "real mixture of work and social connection and learning," where all the ingredients were needed to make an effective whole. In their constructions, they could not separate the components of online experience into single, discrete functions and saw no need to do so. They viewed the nature of the online environment as a place where they could work and learn and be in community with their peers.

Role of the Moderator

In her cake-baking analogy, one coordinator visualized the online environment as a mixture needing all the ingredients of work, learning, and social interaction or "the cake's going to fall." To extend that analogy, participants believed that someone needed to be paying attention to the recipe, adjusting for taste, turning on the oven, preparing the pans, and "stirring the pot." From their viewpoint, this role belonged to the moderator who they viewed as " the one constant" critical to the success of the online environment.

In reflecting upon their experiences and trying to explain their understanding of the nature of the online environment, the participants spoke of the role of the moderator as "being the one who was always there." Data from both the survey and the interviews show that the participants valued the moderator's technical role, believing that the online environment "wouldn't have gotten off the ground" without a moderator who could help them access the system and provide technical trouble-shooting. While participants always mentioned the technical support as part of the moderator's role, they also spoke of how the moderator managed the flow and pacing of the discussion:

> There were periods where nothing much was going on and then [the moderator] would throw in a survey or throw in a questionnaire or something like that which would get everybody excited again. Like I thought maybe after Christmas it was starting to get a little thinner and then [the moderator] started to have some surveys and the Christmas stories and some things like that which just gave a person a reason to get back on there to see if there was anything new.

The moderator appeared to sustain group process, being described as the one who "guided us and spurred us on," and who "kept it moving and kept it educational for all of us." Participants viewed the moderator as someone who helped them to learn, not only in learning the technology itself but in processing the information:

> I really liked how the moderator was able to keep it a learning experience. I noticed lots of times [the moderator] would say 'I see that there's a theme in

> this. What do you think?' or whatever. That was great because even if some of us then didn't respond it was equally valuable in thinking about it, looking at it a different way or looking at the responses of those that did. That was useful.

Coordinators felt that the moderator was important "at the beginning, in the middle, and at the end" – in the beginning for technical support and orientation, in the middle for group process " to notice when things were flagging," and at the end as an educational facilitator to "keep it a learning experience."

Coordinators envisioned that a moderator was needed to sustain the community. Due to the specific nature of the group with its continual turnover of coordinators, they anticipated that the moderator would be necessary in an ongoing capacity to provide technical support and orientation. They also spoke of the moderator as needing to be there on an ongoing basis to "generate input, generate thought" and "to pop up a question or something to think about or some funny little comment or whatever to get us going again." They envisioned the moderator as "an invisible mentor with a sense of humour," as "a herder of cats who are going a bazillion different directions," as someone who created "an ongoing focus group" and who provided "more than technical support – emotional support." It was important to them that the moderator understood their working context and the nature of their community, that "she knew what they were about and what the job was like. To read and feel that 'she gets it'." Again the coffee metaphor appeared in their attempts to visualize the moderator's role – "it really kept things perking along. Things just didn't go into cyberspace and die." These participants believed that none of them had the time or energy to serve as moderator in a voluntary role.

Summary

This chapter has described how participants understood the nature of the online environment and what it represented to them. They thought of it as a tool for work and communication, as a place for learning both technical skills and job-related information, and as a social community where they could find affirmation and support from those with shared interests and experiences. They did not separate these various constructions of work tool, learning place, and social community, but instead understood them as an integrated mixture. They also viewed the role of the moderator as integral to creating and sustaining an environment where they could be safe to work, learn, and be in community.

CHAPTER 6: DISCUSSION OF FINDINGS

The purpose of this study was to understand participants' experiences in an informal online learning environment and to assess the extent to which their experiences constituted a community of practice. The main research question in this study asked: To what extent did participants' experiences in an informal online environment constitute a community of practice?

Supporting research questions were:

1. What were the major motivations and deterrents to participation?
2. How did participants conceptualize their online experiences? What did their online experiences represent to them?
3. What was the role of the moderator in this online experience?

In my discussion of the findings, I seek to show that this online environment did constitute a community of practice that provided a space for newcomers to become enculturated and learn elements of the coordinator practice. Members in this community of practice, through sharing of stories and collective learning, explored the meaning of their work and their identity as practitioners. I argue that despite not being a formally structured online course, this environment provided significant learning within a social framework. I also suggest that the moderator played an important role in keeping this *online* community of practice moving. When communities of practice exist within a computer-mediated environment in an informal setting, an online moderator may enhance their functioning by providing technical support, maintaining group process, nurturing the social aspects of the community, and facilitating learning.

Summary of First-Order Themes

The findings of Chapter 4, which described participants' experiences in the online environment, were categorized into four first-order themes - Initial Motivations, Reasons for Coming Back, Deterrents to Participation, and Differences Between Newbies and Moldy-Oldies. The findings of Chapter 5, which presented participants' understandings and conceptualizations of the nature of the online environment and what it represented to them, were categorized into five additional first-order themes – A Tool for Work, A Place for Learning, A Social Community, A Real Mixture of Work, Social Connection, and Learning, and Role of the Moderator. In this section I will briefly summarize these nine first-order themes that speak to the first research question concerning motivations, deterrents, and contextual factors that affected both participation in and conceptualizations of the online environment.

Coordinators were initially motivated to take part in the online environment to help offset the isolation of their work environment. The majority of coordinators in this study worked alone in small communities, worked in an occupation that was shared by no-one else in the community, and worked in geographic isolation from their peers. For them, the online environment represented a way to reach out and connect with others who shared a similar working situation. They were also initially motivated by a sense of professional obligation, both to other coordinators who were part of the provincial organization and towards their own Councils and learners in their communities. Many were motivated to participate by a belief that technology was the way of the future and that online learning and communication would play an increasingly important role in both their work and personal lives. They anticipated that they would learn new technical skills through their participation.

After the first flush of motivation and "good intentions," coordinators who continued to participate over the longer term identified two primary reasons for coming back. Many found that the information they received and the ability to connect with peers made their job easier. The online environment represented a valuable work resource even for those who did not actively contribute through posting but who usually just "lurked" in the background and read what was going on. Participants also kept coming back as a way to "feel connected" to the other coordinators and to decrease the isolation that was inherent in their job function and geographical location.

The major deterrent to participating in the online environment was a lack of time. While many had "good intentions" of participating regularly, other competing priorities often meant that they went online less frequently than they had intended or only went online to read but not post. Those who integrated CLNOnline into their working pattern or routine were most successful in addressing this lack of time deterrent. Technical limitations, particularly slow Internet connections and older computers, were another deterrent to participation. A third deterrent to contributing to the online environment through actual postings was the perception of some coordinators that they had a lack of experience or information to share.

The experience of participating in CLNOnline seemed to be different for those coordinators who were relatively new to the job compared to those who had more years of experience. The Newbies were more apt to "lurk" and stay in the background, coming forward usually to ask for job-related information. The Moldy-Oldies, those coordinators who had more experience in the position, tended to respond to questions more often than to ask questions, providing advice, information, and support to the other coordinators.

Many coordinators conceptualized the online environment as "a tool for work." Online discussion groups, electronic file-sharing, e-mail, live chat, and links to website resources were conceptualized as various tools that were of value to their work setting which allowed them to communicate with others, gain information, and problem-solve together.

The findings also revealed that coordinators viewed the online environment as a place for learning. They wanted to learn the technical skills necessary to utilize the Internet more effectively both for work and personal reasons. In addition to technical skills, they also learned information and practices related to their job. They learned through active participation and also through peripheral participation of "lurking." Many attained an increased sense of computer self-efficacy, a shift in perception of their own capability to use online technologies and of their capacity to succeed in future learning endeavours. Their learning spilled over from strictly work-related practices to using the Internet in their personal lives. They also became increasingly aware of the larger provincial context of community adult learning in Alberta and of the potential role that online technologies could play in their communities.

Many coordinators conceptualized the online environment as a social community that represented a "safe place" for them to find support and affirmation. This community had identifiable boundaries that restricted membership to those who shared a common occupation, and within those boundaries community members shared stories of common experiences, challenges, solutions, and support.

While the coordinators understood the nature of the online environment as a tool for work, a place for learning, and a social community, these conceptions were integrated rather than mutually exclusive. They conceptualized CLNOnline in a holistic manner, as a "real mixture" where the three aspects of work, learning, and community were interconnected. A final finding was their emphasis upon the role of the moderator in this environment as instrumental in integrating these various functions.

Overview of Second-Order Themes

The previous section summarized the first-order themes that emerged from the data and took their lead from the words and descriptions provided by the participants. As such, they were not tied to a specific theoretical framework but rather were treated as a starting position for analyzing the data. Collapsing of these themes found in the survey results, interview transcripts, online postings, and review of the literature, surfaced three second-order themes. Two of these second-order themes - *Learning* *the Practice of Being a Coordinator* and *Searching for Connection* – support Wenger's (1998, 2001) theoretical framework of learning as participation in a community of practice. I seek to show that online participation was not only a tool for informal learning situated within the coordinators' experience, but also that participation became important in defining the coordinators' community of practice. As such, these two second-order themes provide illustration to support theory.

The third second-order theme - *Moderator as Enabler* - extends the literature on communities of practice to the online realm. In this study, the moderator kept the online community of practice moving, performing similar technical, social, organizational, and educational functions as moderators in formal online learning courses. While the importance of the moderator has been identified in formal online learning, it has not been examined within online communities of practice that are inherently informal in nature. I argue that the presence of an online moderator in this community of practice served to sustain the community and deepen the learning.

Learning the Practice of Being a Coordinator

The online environment of CLNOnline provided a virtual space where coordinators, both new and experienced, learned elements of their practice and gained insight into the meaning of their work. At a skill acquisition level, they learned the technical aspects of their work – course programming, recruiting and evaluating instructors, filling in government forms, developing needs assessments and Council bylaws, and how to use online tools that were unfamiliar to them. The community of practice "made their job easier" through interaction with a network of practitioners who were competent in this particular sphere of activity. They learned primarily through sharing of stories and discussions of problems. They also "learned by lurking," and "picked up ideas" even when they just read the online postings but did not contribute themselves. They also learned less explicit elements of their work, such as acquiring the viewpoints of the practice. Examples of these viewpoints or orientations included the beliefs that non-credit learning is as important as credit courses, Councils are undervalued in the post-secondary system, coordinators are overworked and underpaid, and government accountability requirements do not take into account the nature of community learning. Coordinators learned how to speak the language of the community and how to behave as members, learning such cultural norms as the expectation of sharing, cooperating rather than competing, and a willingness to help.

What the coordinators learned in CLNOnline and *how* they learned it illustrate key characteristics of the community of practice theoretical framework. Communities of practice can be thought of as "shared histories of learning" (Wenger, 1998, p. 87). Members in the coordinator community of practice learned not only the intricacies of their job, but also other less tangible elements of their practice as coordinators. *How* they learned these aspects of being a coordinator also illustrates a central tenet of the community of practice literature. Central to this theory is the belief that a learner constructs knowledge through involvement and participation and that learning is not "some special activity, for which educational institutions provide generally privileged sites, but an aspect of ongoing everyday practice" (Lave, 1992, p. 1). Learning, from this perspective, is a process of enculturation whereby skills, knowledge, beliefs, and values appropriate to the practice are acted upon through legitimate peripheral participation. This conceptual framework "shifts the analytical lens from individual as learner to learning as participation in the social world, and from the concept of cognitive process to the more encompassing view of social practice" (Wenger, 1998. p. 43).

It was through participation in the online community, primarily in the form of telling stories, that members learned ways of doing things, ways of talking, values, beliefs – all of which constitute "practices." Participation, both at the core through active postings and at the periphery through "lurking," helped coordinators learn both the practical and less explicit aspects of their practice. Both of these characteristics – learning through sharing stories and legitimate peripheral participation – illustrate existing theory that participation in communities of practice allows individuals to develop the knowledge that lets them do other tasks (Wenger, 1998). The informal nature of the learning environment and processes were situated in real life contexts.

The literature in Chapter 2 on different theories of women's learning adds another dimension to understanding the learning component of this community of practice, because all of the participants were women. Their conceptualization of the online environment as a mixture of work, learning, and social speaks to the integrated and connected nature of women's ways of knowing (Gilligan, 1979, 1982: Belenky et al.,1986). These women shared work problems, motherhood stories, policy documents, and Christmas traditions in an integrated web of connection. The relational orientation toward networking, sharing, and support was evident in the nature of their online interactions - there were many "feeling for you" postings that wove threads of cooperation, empathy, and community. There was a noticeable absence of any "flame wars," and themes in the online stories and postings served to minimize differences rather than to preserve independence. Status, competition, and individual accomplishments did not seem to be a focus of the conversations; instead the focus was on "circles of support and not of power" (Noddings, 1984, p. 200). It was important to the coordinators that the online environment was "a safe place" to ask questions, to share stories, and to learn together. The learning was socially constructed in ways that honoured their own experiences and was shared and elaborated through relationship and conversation.

Enculturation of Newcomers

Another characteristic of a community of practice is that it provides for enculturation of newcomers into the practice. The more experienced practitioners, through the social process of sharing stories and examples, help the newcomers come to understand and learn various aspects of the practice. Even though the newcomers may stay on the edges and primarily observe for some time, such participation is recognized as legitimate learning.

The theme of Differences Between Newbies and Moldy-Oldies that emerged from the data illustrates this characteristic. The coordinators who were Newbies often spoke of the value of logging in to CLNOnline to read and learn, but were hesitant to post initially because they felt their inexperience rendered them with "nothing to offer." When they did actively post, it was usually to ask for information about practical aspects of practice, such as what courses to offer, what instructors were available, how to plan for cost-recovery, or how to fill in year-end forms. For many Newbies, their participation was peripheral, staying on the edges and "lurking" while at the same time learning through their online experience. However, over time, some Newbies began to move from the periphery towards fuller participation in the online community of practice.

One new coordinator who had wanted to "stay in the background and not make a fool of myself" logged on to a live chat which had been scheduled to discuss the annual ritual of completing required year-end accountability forms. This new coordinator anticipated that she could log into the chat and her presence would go undetected. When she realized that her name appeared on everyone's screen and that she was part of a group of more experienced coordinators, she quickly typed in "Is there room for me?" The more experienced coordinators welcomed and "made room" for her, and she participated in the discussion as they shared stories of their experiences and determined strategies which would make the next year's form completion go somewhat more smoothly. Shortly after that live chat, this same new coordinator made her first posting in the discussion forum, offering a response to a query on managing board relations, so she had moved gradually from the periphery of logging on and "lurking" every day to fuller participation in the community of practice.

The Moldy-Oldies (the more experienced coordinators) identified this enculturation of newcomers as an important component of CLNOnline. Many vividly remembered their own limited orientation to the job, and wanted to help new coordinators as they learned the procedures and norms of the practice. One Moldy-

Oldie reflected that the stories shared in CLNOnline helped the Newbies see that "it is not a perfect world" where courses did get cancelled sometimes, grant proposals were often unsuccessful, and community Council members could occasionally be difficult to deal with. Another experienced coordinator mentioned that she "didn't want to say too many negative things" since she was conscious of the impact those comments would have on new coordinators. As the experienced coordinators responded to the questions of the newer coordinators, this enculturation of newcomers into the practice unfolded.

The "Council crisis" story seemed to symbolize this interplay between the Newbies and the Oldy-Moldies. As explained in Chapter 5, the "Council crisis" story involved a new coordinator who posted a situation that had been emotionally upsetting. When I interviewed this Newbie about her experiences, she said that she had posted her "plea for help" because she had "seen others asking questions." Her posting represented a movement from the periphery towards fuller participation, and the responses from the experienced coordinators were not only emotionally supportive but also "very professional in nature" including examples of adjusting bylaws and modifying policies to prevent such a reoccurrence. The fact that so many coordinators referred to the "Council crisis" story attests not only to issues of safety, vulnerability, and trust, but also demonstrates how the online environment provided a place where newcomers could learn from the shared wisdom of the more experienced practitioners.

The presence in CLNOnline of the manager of the Community Programs Branch also influenced this enculturation of newcomers. Data from both the survey and interviews show that participants valued the manager's presence online, finding that it added another authentic voice to the community's learning. Her comments and responses added to the enculturation and support for newcomers, and she also honoured the wisdom of the more experienced coordinators by asking for their suggestions. Participants appreciated her voice online and interpreted her presence as support for their learning and their work.

The themes in Chapter 4 of Differences Between Newbies and Moldy-Oldies, Initial Motivations, and Reasons for Coming Back all involve the motivations and interplay between novice and experienced members in CLNOnline, and illustrate the characteristic of a community of practice that provides for the enculturation of newcomers. Through conversations and sharing of stories, as well as participation from the periphery in the form of "lurking," newcomers learned to become members of the community of practice. There was a gradual acquisition of knowledge and skills as the novices learned from the experts in the context of everyday activities. The role of the more experienced coordinators was to pass on important knowledge and confer legitimacy on the practices under discussion.

Searching for Connection

Searching for Connection was the next second-order theme that was a key refrain cutting across the first-order themes of the Initial Motivations, Reasons for Coming Back, Differences Between Newbies and Moldy-Oldies, A Tool for Work, and A Social Community. In their search for connection, I argue that coordinators not only were searching for social connection and relationships to offset the isolation of their geographic place, but that they were searching for connection with what it meant to be a coordinator individually in their own local practice and what it meant to belong to the collective coordinator community. They were drawn to the online environment through this search to connect with peer practitioners who understood not only the coordinator job function but also the cultural and value context. Particularly for the Newbies, this search involved a search for identity, for what it meant to *be* a coordinator. Participation in the online community of practice involved creation of personal identity as a member of the coordinator practice as well as recreation of the identity of the practice itself. The search for connection also constituted a search for meaning, for making sense and understanding of their work as coordinators. As such, the online environment illustrated essential characteristics of a community of practice.

The search for connection and belongingness as a means to offset their geographical isolation and the conceptual isolation of their job was one powerful motivator to participate in the community of practice. The fact that all the participants were women also influenced the nature of their search for connection. Theorists such as Miller (1986), Gilligan (1982), and Belencky et al., (1986) propose that the majority of women display relational modes of interaction, desiring affiliation and connection. The participants in CLNOnline were largely motivated to participate in the online environment due to their need for social connection, and they continued to participate because it met their need to reach out and communicate, not only about matters of work practice, but about other issues of importance in their lives. Many spoke of "not wanting to miss anything" and "going online to see what was happening," and those who identified most closely with the provincial community of coordinators tended to log on the most frequently. The feminine orientation to weave "networks of relationships" (Gilligan, 1979, p. 440) was clearly in evidence. The coordinators' love of live chat illustrated this desire for social connection, for despite the inconvenience of having to be online at the same time, they felt it provided a different level of closeness than the asynchronous postings. But this search for connection involved more than an attempt to offset geographical isolation or a feminine search for affiliation. Within the community of practice framework, this search for connection involved both creation of identity as an individual practitioner and identify formation of the group itself.

Connection and Creation of Identity

A key characteristic of communities of practice is that such communities provide for the creation of identity through learning that is situated within an authentic social context. Wenger (1998) advocates that

> Learning entails both a process and a place. It entails a process of transforming knowledge as well as a context in which to define an identity

> of participation. As a consequence, to support learning is not only to support the process of acquiring knowledge but also to offer a place where new ways of knowing can be realized in the form of such an identity. (p. 215)

As a community of practice, CLNOnline provided such a place where coordinators could learn not only information, skills, and practices that were helpful in their job, but they also could create an identity of who they were as a coordinator within the community of practice. Through their participation, they gained a sense of professional self and also helped to shape the identity of the larger online community. Barab and Duffy (2000) claim that through this telling and retelling of stories, individuals do more than pass on knowledge. They contribute to the construction of their own identity in relationship to the community of practice, and, reciprocally, to the construction and development of the community of which they are a part.

Participation in the CLNOnline environment allowed coordinators to construct an identity of themselves as competent practitioners. Identities were formed, adjusted, and re-formed through the sharing of stories both work and personal. One experienced coordinator, through the frequency, generosity, and specificity of her responses to online questions, formed an online identity as a "master coordinator" (a term given to her by her online peers), yet in the physical community of coordinators she had not attained that identity despite being part of the community for ten years. Coordinators spoke of how the "stories provided us with pictures of people" and how some stories "sometimes changed those pictures." As various coordinators would post stories of how they carried out functions in their community, different identities of "who am I as a coordinator" began to take shape. As one Newbie commented, "I learned there were many different forms of coordinator, and I don't have to be the same as the person who was here before me." Over time, community participation created both commonality and differences between people.

Wenger (1998) theorizes that members bring their identities to the community and their participation both develops and shapes their identity. As coordinators continued to participate in the online environment and learn new skills, they forged or reaffirmed their own identity. One coordinator mentioned that through the discussions of how to involve communities in needs assessments and planning, she "knew she was on the right track." Another who viewed online technologies as "very yuppie, very Granville island," reported that "I think I'm special now" because she now was part of an online group. Not only had she learned the technical skills of someone who is computer literate, but she had also reconstructed her own identity of a competent Council coordinator through her participation. Her uniqueness was reaffirmed. In their discussions surrounding job titles, coordinators not only were sharing information about what responsibilities accompanied various titles, but they were also exploring individual identity. The discussion focused on various titles of coordinator, executive director, manager, even CEO. One Moldy-Oldie finally posted a humorous account saying she "preferred to be called the Big Kahona herself." When I interviewed her about this posting, she reflected that, for her the title was not the issue defining her identity, but rather what she did in the job and if she was adequately compensated for that work. Through a different analytical lens, the discussions of job title could be merely classified as information-request and information-giving. But within the community of practice framework, such discussions represented a deeper learning where coordinators were constructing an identity of their professional selves.

In addition to constructing personal identity as a practitioner, the community of practice helped coordinators to form an identity of themselves as a community. The entire Community Adult Learning Program and the structure and purpose of Community Adult Learning Councils in Alberta are little known and poorly understood even inside the post-secondary system itself. Coordinators often spoke of "having to explain what we do." One coordinator reflected that coordinators throughout the province were a "loosely-coupled group" that was both diverse enough in job function and unable to meet physically often enough to form a sense of mutual identity. To her, CLNOnline enabled that collective identity to be forged though the ongoing connections, reflections, and sharing of stories.

Seeing various phrases in text helped to forge that sense of community identity. In a response to a query about the role of coordinators in a community, one Moldy-Oldie posted "because we're coordinators, we have that sense of helping out." Another referred to coordinators as "we're a sharing lot." The Newbies, even if only "lurking" on the periphery, consequently learned that part of their collective identity as coordinators involved a value ethic of helping and sharing. Another coordinator speculated that learning what other people and communities were doing would "raise the bar for coordinators and councils in terms of expectations and performance," so in this way collective identity was also being reconstructed.

The technology itself impacted upon the recreation of individual identity and the identity of the group and its practices. New forms of practice emerged, with the phrase "I'll put it on WebCT for you" becoming a common response to a request for information both within CLNOnline as well as in face-to-face meetings. As such, the identity of being a coordinator was being recreated to include participation and sharing in the online environment. Coordinators learned how to use live chat to plan agendas for meetings, and how to write a proposal collaboratively using a private discussion forum and shared documents. Not only were these technical skills being learned, but, through their participation, coordinators were reshaping their identity in terms of both their professional and personal selves.

The women in this study had limited access to modern computers and an overall lack of experience with online technologies. As one coordinator phrased it "I have just this clunker at work and at home I can never get on because the kids are always on it." Working within the context of the community non-profit sector, many had to rely on fundraising, lottery grants, or corporate sponsorships to upgrade hardware and software, since they were "not allowed" (their phrasing) to make capital purchases from their Alberta Learning operating grant. This lack of access and socialization away from technology in both the personal and public spheres resulted in a lack of confidence and a perception that using online tools was "something other people did." E-mail queries to the moderator for help often included opening disclaimers such as "I'm sorry to be such a techno-dummy" or "This is probably stupid, but." As the participants became more skilled in using the technology through their participation in the community of practice, they reconstructed their individual identities as practitioners who were competent in using online tools and their group identity as a practice that used technology to accomplish tasks.

When the coordinators did begin to use online technologies, it was in ways that Zuga (1999) reported – they used it primarily as a tool to communicate and to connect with other aspects of their lives. They were motivated to learn technologies that would help them communicate with their children, their grandchildren, their parents, and their adult siblings at a distance. When they were learning to search the Internet, they were often looking for health-related information and information to help their children with homework. Their learning needs and motivations were situated within their socialized context as women. Even though they were learning how to use the technology in a work-related role, they integrated this learning into their multiple roles as women. This informal learning that was situated in practice changed both their sense of professional and personal self.

The creation of identity was embedded within the search for connection experienced by participants in this study. The formation of identity in CLNOnline involved both identity of "who am I as a coordinator within this community" and "who are we as coordinators with the provincial learning landscape?" This aligns with Wenger's observation that "identity in practice is therefore always an interplay between the local and the global" (Wenger, 1998, p. 162).

Connection and Construction of Meaning

Putting a group of practitioners together does not necessarily constitute a community of practice, whether the location is online or face-to-face. An important characteristic of a community of practice is that it provides members with a medium for negotiating meaning, of making sense and understanding of their work. This production of meaning is a social effort that is produced by everyday, ongoing actions of a community of practice. As Wenger (1998) states "In our communities of practice, we come together not only to engage in pursuing some enterprise but also to figure out how our engagement fits in the broader scheme of things" (p.162). The conversations, stories, and interactions of CLNOnline illustrated this characteristic as coordinators struggled to make sense of their own role and the role of Councils in the larger learning arena of adult education. In this way, their search for connection involved the construction of meaning.

Coordinators used the different technology tools available in the online environment to understand the meaning of their work. The asynchronous nature of the online discussion forums enabled them to read and reflect upon the shared stories of programming challenges and opportunities, of working with Council members and agencies, and of struggling to meet community needs with limited resources. One coordinator phrased this ability to reflect on multiple experiences as "it gave you a new level of understanding," while another compared her reflection to the story of the bricklayer's perspective – "are you just laying bricks or are you building a great cathedral?" In reading stories of others involved in the practice, she was able to make sense and meaning of her day-to-day programming efforts in her small community, for she was able to situate them within a larger purpose. She no longer viewed her efforts merely as "running some computer and first-aid courses" but instead saw them as components of a larger picture, that of building a stronger community and a stronger province. The discussions and reflection enabled her to "look at things in a different way." Wenger advocates "an important aspect of the work of any community of practice is to create a picture of the broader context in which its practice is located" (Wenger, 1999, p. 161). In my study, coordinators spoke often of "gaining a larger awareness" of other Councils and how they contributed to the overall adult learning landscape in Alberta.

While the asynchronous online discussions allowed coordinators to make sense of their work often through the opportunity to reflect or to "tally things in the back of my head," coordinators used other technology tools such as the online polls and the live chats to explore the meaning of their practices. One such poll surveyed coordinators on practices surrounding the creation of annual business plans and how these documents, which were required by Alberta Learning, connected to their actual Council practices and subsequent budget allocations. When the results of the poll showed that, for many Councils, the preparation of a business plan was done primarily by the coordinator in isolation from Council and with little relationship or effect upon ongoing practice, coordinators began to reflect on the real meaning of such objects of their practice. Even those who did not engage in the discussions following the poll results "thought about them and mulled them over" in an effort to make meaning of those routine activities of their practice. Another online poll revealed that less than half of the coordinators had contacted local candidates who were running in the provincial election to ask them about their platforms concerning Adult Learning Councils. In the follow-up discussion postings and live chat, coordinators attempted to make meaning of the discrepancy between their ongoing complaints of inadequate funding and their silence politically on this issue. Through these discussions, coordinators generated a shared understanding of the meaning of events and practices.

The second-order theme of A Search for Connection, therefore, illustrates characteristics of a community of practice that involve the construction of personal and collective identity as well as the exploration of the meaning of one's work. Many examples in the literature on communities of practice focus on small groups that find "water-cooler" time to meet and discuss their specialties and work environments, and through this informal interaction expand their understanding of their occupation. Through their recurring metaphors of the online environment as a "coffee shop" or a "staff room," it can be argued that coordinators used CLNOnline as a space and time for such "water-cooler" participation in a community of practice that validated their work. Their search for connection, while it was grounded in a social framework, went beyond the search to offset their physical isolation and involved a deeper search for meaning and identity.

Moderator as Enabler

The final second-order theme that surfaced was Moderator as Enabler. While Chapter 2 summarized what we know about the moderator's role in formal distance education (Hiltz & Turoff, 1993; Tagg, 1994; Mason, 1994; Harasim et al., 1995), the current community of practice literature does not address the concept of a moderator when such communities exist in a computer mediated environment. I argue that the moderator enhanced the functioning of this online community of practice, and I will illustrate both moderator roles and essential characteristics. In the discussion of participants' conceptualizations of the online environment in Chapter 5, it was clear that the coordinators perceived the moderator as being integral to shaping, supporting, and sustaining the online community. In Chapter 5, however, I did not include my own perceptions and experiences, wishing to clear the field for only the words and understandings of the other members in this community of practice. I have waited until now to weave my own experiences into the discussion because, as the moderator, I was also a participant embedded in the community and observed its development from a different perspective. This reduced distancing of the researcher falls within accepted claims of the qualitative paradigm, and, in this area of study, adds to our understanding because we have so few cases from which to learn.

Enabling the Process and the Community

As discussed in Chapter 2, an online moderator combines the roles of technical trouble-shooter, educator, hostess, chairperson, facilitator, and community organizer (Mason, 1994; Tagg, 1994; Berge, 1995, 2000). In this study, data from the interviews and open-ended survey responses (where no question regarding the moderator was even asked) show that the coordinators perceived the role of the moderator as "absolutely critical" in starting up, supporting, and sustaining this informal online environment. The moderator was seen as the "guide" who provided "emotional support," who "spurred us on," "stirred the pot," and "kept it a learning experience." In my experience as moderator of CLNOnline, these roles blurred into each other, and my own background, motivations, and personality shaped the role. As Paulsen (1995) suggests, my own humanistic philosophical orientation and student-centered approach to teaching influenced my vision of what CLNOnline could be and subsequently my facilitation style.

Particularly when the community of practice was just starting up, many of the requests of the moderator related to technical issues, helping the participants access the system and learning to send and receive messages as described in the first two steps of Salmon's (2000) framework for e-moderating. As Tagg (1994) suggested, I consciously tried to humanize the technology in my technical trouble-shooting. As an example, in response to a query about how coordinators might distribute information to Council members electronically, I tried to situate the technical skill within the larger human context of the community of practice by commenting "Before I provide a technical answer of how to do this, I'll comment a bit on the human side of sending agendas and other information by e-mail."

The responses of the coordinators in the survey and interviews concur that technical competence, while a necessary characteristic of a moderator, was not sufficient onto itself. They perceived that the moderator helped to build the sense of a social community. This aligns with the social function of a moderator in formal online learning situations (Mason, 1991; Berge, 1995). A challenge of the moderator in a voluntary online community of practice is to build and sustain participation, while being sensitive to the many competing urgencies in the members' daily workplace. Consequently I tried a variety of strategies to encourage participation. I sent private e-mails to thank people for their postings, to invite them to comment on a topic that I knew was relevant to their experience, and to build relationships between individuals and myself as moderator. In some situations, I sent private e-mails to encourage individuals to challenge the emerging community view in an effort to stimulate discussion and the exploration of alternative viewpoints. As moderator, sometimes I would play "devil's advocate" and describe a viewpoint that ran counter to a developing thread. I started "social" threads, including the Christmas stories, in an attempt to build community. These behind-the-scenes strategies helped to build a sense of support and recognition of mutual interdependence.

Wenger (2001) refers to communities' need for a rhythm of events and rituals that reassert their presence over time. While acknowledging the benefit of asynchronous participation, he points out that "the danger of a pure web-based presence for a community is its timelessness. It is always possible to participate, but by the same token, there is never a special occasion to participate" (p. 48). As moderator, I tried to create those special occasions or events that would contribute to a sense of communal time and encourage participation. I created on-line polls that not only collected information quickly, but also provided an opportunity for those coordinators who liked to remain "silent" on the periphery to participate in an anonymous fashion. I scheduled live chats on specific dates, and I opened new discussion threads when conversation was flagging. Despite acknowledging my role as moderator in encouraging ongoing participation, I was conscious of Burge's (2000) caution that moderators could not afford to "get trapped into the 'Atlas syndrome' of holding up the discussion world" (p. 12), and consciously waited for other voices to be heard rather than making postings every day. The ratio of my moderator postings to participant postings over the total time ended up being 1:3.

Enabling Learning and Construction of Meaning

When the coordinators' professional association and the Community Programs Branch launched CLNOnline, their original goals were to increase communication and sharing of information and to provide exposure to online tools for those purposes. The evolution of this online group into a community of practice occurred over time and was broader than the original intent. Key dimensions of a community of practice according to Wenger's framework included shared learning, creation of identity, and construction of meaning. In this community of practice, I as moderator placed a high value on the educational potential of the situation, and my practices and strategies went beyond enabling members to use the technology that housed the community and beyond enabling social relationships. As moderator, I assumed the pedagogical role of supporting the particular learning of the practice and helping members to reflect upon their practice as part of their construction of meaning.

I found this task of "keeping it a learning experience" particularly challenging since the demands of the workplace context meant that online participation could easily be reduced to reading and quick responses. One of the original learning goals of this particular community of practice was for coordinators to learn to use online technologies. As moderator, I helped to enable this learning by incorporating various tasks into the flow of the community, such as working with file attachments, searching for Internet sites, and copying and pasting data into their discussion postings. Campbell et al. (2000) observed that the construction of VIOLET as an online resource for abused women was "a circuitous way…of introducing it (Internet technology) into their experience so that they see how non-threatening it is and within their grasp of obtaining the capability to operate it" (p. 40). Participating in CLNOnline similarly became such a circuitous strategy for coordinators to learn to use online tools by embedding or situating their use within their working context. As the moderator, I was able to structure some of the skill acquisition that took place within the community of practice.

In reviewing the transcripts of the online discussions, it was common for the moderator to ask questions and use phrases such as "I'm noticing a theme" and "I wonder." Several of the moderator postings involved this type of summarizing, weaving, and "nudging" the discussion to a deeper level. In this way, the moderator helped coordinators construct meaning and identity within the community of practice. In the absence of this "nudging," much of the conversation might have stayed at the level of information. As moderator, I created online polls on topics that might spark discussion, and instead of just posting the poll results, I followed up with discussion threads to explore the meaning of those results. For instance, the coordinators enjoyed learning what programs were being offered in other communities, so I created a poll to capture those results. Instead of just posting the results as information, I probed to see what trends the results revealed, and helped the coordinators to reflect on the meaning of such patterns and implications for their work.

I also scheduled live chats on various coordinator practices. The live chat transcript in Appendix I illustrates the community of practice in action during a discussion on the meaning and practice of completing year end accountability documents. One can see the interplay between Newbies and Moldy-Oldies as they explore elements of practice and issues of meaning. The Moldy-Oldies provide some of the history of the practice – how the forms have evolved, how the funding allocations have been established - as well as their own specific strategies in fulfilling the requirements of Alberta Learning. The Newbies appear to be primarily concerned with the practical specifics of how to complete the forms, whereas the Moldy-Oldies explore deeper issues of identity – of the struggle to communicate through quantitative measures what Councils represent in a community and what they mean in the larger adult learning landscape. My contributions as moderator in this chat all served to summarize discussions and pose further questions – questions that "nudged" the coordinators into exploring the meaning behind such accountability rather than just devising more efficient methods of data collection and reporting. The feedback from the interviews showed that participants valued this moderating role that facilitated "expansion of thought":

> I liked the live chats because of the guided discussion. There would be a topic and the topic would go in lots of directions – it would mushroom in different ways. And somebody would say something and it would spark a thought. What it sort of did was it fed on itself. The conversation fed on itself and it would go in all kinds of different directions. Whereas if you just went on and posted for information, the postings worked well for information-giving or getting information statically. But to encourage expansion of thought, live chat was good.

The works of Anderson and Kanuka (1997) and Burge et al.(2000) both concur that the role of the moderator goes beyond just posing problems or responding to questions. In this study, the participants believed that the moderator facilitated learning by helping them to explore issues of meaning more deeply. This aspect of the moderator's role helped the community evolve from a forum for information sharing to a community of practice where knowledge was constructed through shared learning.

The second-order theme of Moderator as Enabler adds to the community of practice literature by emphasizing the role that the moderator played in supporting the technical, social, and learning components in this *online* community of practice. Moderator roles and functions were similar to those identified in formal online learning situations (Paulsen, 1995; Salmon, 2000; Mason, 1991; Berge, 1995; Berge & Collins, 1996). Despite the informal nature of the learning context, participants regarded the moderator as integral to sustaining the existence of the community of practice and enabling the experience to be of greater learning value than just a social community of interest. Essential characteristics of an online moderator in this informal environment included technical competency, an understanding of community-building and developing social connections, a learning orientation, and sufficient knowledge of the practice itself to demonstrate credibility.

Summary

This research began as a quest to understand more about informal learning in online environments that are not part of a formalized course of study. The main research question in the study asked: To what extent did participants' experiences in an informal online environment constitute a community of practice? Supporting research questions sought to understand the motivations and deterrents that impacted participation, how participants conceptualized their online experiences, and what role the moderator played. As researcher, I had the good fortune to have access to a year's worth of data and participation in such an online environment that I used as the focus of my study.

The online community in this study illustrated the key characteristics of a community of practice as presented in existing literature. The community was focused around a sphere of shared competence, knowledge, and interest – the work practices of the coordinators of Alberta's Community Adult Learning Councils. Through interactions, primarily the telling of stories and shared problem-solving, the members of the group formed a social community around this practice. The community was more than just a community of interest – through mutual engagement the group developed a shared repertoire of stories and cases which functioned as a dynamic knowledge source upon which to base future practice. As a community of practice, the online environment facilitated a space for the learning and enculturation of newcomers as well as an opportunity for more experienced practitioners to gain new insights into various aspects of the practice and of their own professional identities as coordinators. Telling of stories helped to develop and construct not only identity as an individual practitioner, but also served to continually reconstruct the identity of the collective community of coordinators.

Additionally, participation in the online community provided members with a medium for negotiating meaning, of making sense and understanding of their work. Even peripheral "lurking," where members read postings but did not actively contribute to online discussions, was a legitimate form of learning and participation. The online community of practice constituted a forum for meaningful informal learning situated within a work context.

My contribution to extend existing theory relates to understanding communities of practice within a computer-mediated environment. I propose that the presence of a moderator enhanced the functioning of this *online* community of practice, particularly in facilitating the "dynamic knowing" (Wenger, 2001, p. 2) which deepened the learning and exploration of meaning. This research suggests that the presence of a moderator who had a learning orientation and who was attuned to the cultural, social, and organizational issues of the particular practice was helpful in sustaining the online community over an extended period of time and assisting it to evolve beyond the level of social interaction and information sharing. The moderator appeared to play a role in deepening the learning experience for participants in such an informal context through encouraging critical reflection on workplace practices and group identity.

Implications for Practice

Although qualitative research makes no claims to generalize from the findings, the learnings from this study suggest some implications for practice.

First, organizations that are planning to use online tools as a mechanism for learning are encouraged to think beyond the provision of technical access, beyond the concept of online learning as a structured distance education course, and beyond the use of formal systems such as databases to collect existing knowledge and practices. Organizations who wish to develop the capacity of knowledge creation and dissemination are encouraged to establish and support online communities of practice where learning occurs through participation. It should be noted, though, that online communities of practice are self-organizing systems that cannot be mandated into existence. By their nature, communities of practice are a voluntary interplay of members who choose to come together for social and professional reasons.

Second, organizations whose members are geographically dispersed and/or who are engaged in occupations that are emergent or not common practice might realize the greatest potential from using online technologies for informal learning. In situations where individuals have few opportunities to meet face-to-face or few local knowledge resources upon which to draw, the online environment may provide an opportunity for orientation of newcomers and shared best practice. The creation of an online community of practice as an alternative workplace learning strategy or a professional development resource might be a consideration for such organizations.

Third, organizations that are planning to develop online communities of practice are encouraged to use a moderator to facilitate the process. The moderator performs different roles at different stages throughout the process (Salmon, 2000), and those roles encompass the technical, organizational, social, and pedagogical functions identified by Berge (1995). Effective moderating strategies help to sustain the community through the anticipated ebbs and flows of interactivity and to facilitate the learning that is a critical dimension of the experience. Key characteristics of a moderator include technical competency, an understanding of community-building and developing social connections, a learning orientation, and sufficient knowledge of the practice itself to demonstrate credibility.

Implications for Research

As one result of this journey, I have come to the conclusion that doing research makes one want to do more research. With online technologies in their infancy, we have so much to learn about how they might be used for informal learning in all manner of communities of practice. The following are suggestions for further inquiry that acknowledge some of the limitations of my particular study and would inform our growing understanding of this field.

1. This study was limited to one online community of practice that incorporated the services of a moderator. Further research to compare similar online communities that did not have a moderator would be valuable to help discern more clearly the impact of the moderator on the community's function and participants' learning.

2. This study was limited to following one online community of practice for a period of one year. Additional studies that examine other online communities that stay together for extended periods could examine their development to document the changing interplay between novices and experienced practitioners. At what point

(if any) do experienced practitioners disconnect from performing a mentoring role? What specific learning do they construct from participation in the online community, and what keeps them involved? Do sub-groups begin forming? How does the moderator role affect those relationships and turning-points?

3. Additional research to examine the issue of identity formation in an online community of practice would help us to understand the challenges and limitations of that theory. In what ways do group interactions provide selective means of enculturation, and how does this impact individual and group identity formation? How does an individual strike a balance between acquiescing to the community view and constructing an individual identity?

4. To what extent are online communities of practice transformative in nature? If participation in such communities results in recreation of professional identity at the individual and group level, is there any evidence that this leads to political action?

5. This study involved only female participants. How would participation differ in an online community of practice that involved only male participants? That involved both genders? How would the participants' conceptualizations of the online community change in those situations?

New technologies are blurring the traditional distinctions of formal and informal learning and are causing us to re-examine our existing place-based notions of community and workplace. Technological innovations, particularly telecommunications, have broken down the distance barrier and made it possible to create online communities of practice that connect people with shared interests in spite of geographic separation and other logistical barriers. Learning is no longer tied to a specific place and time, and the potential for online technologies to facilitate and support informal learning is great.

But our enthusiasm for new technologies must be grounded in our understanding of community itself. As Wenger (2001) states:

> New technologies such as the Internet have extended the reach of our interactions beyond the geographical limitations of traditional communities, but the increasing flow of information does not obviate the need for community. In fact, it expands the possibilities for community and calls for new kinds of communities based on shared practice. (p. 4)

It is my hope that this study has shed some light on informal learning in one such online community of practice. It is also my hope that we will continue to learn more about these informal learning contexts that I believe will play an increasingly important role in the lifelong learning landscape.

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Appendix A

Forum Topics and Number of Postings

Forum	Total Postings
All	1028
Public Forums Total	691
Public Forums by Name:	
Archives	63
CAP sites	5
Community Learning Centres	11
Coordinator Biographies	26
Council Administration	45
Great Websites	36
Main	23
Marketing Ideas	12
News from Community Programs Branch	32
Pilot Archives	158
Programming Ideas	58
Resources	7
Rural Access	0
Testing	10
The Internet and Online Learning	20
Tips for New Coordinators	23
What's New in CLN Online?	162
Private Forums Total	337
Private Forums by Name:	
CLN Board	181
Future of CLNOnline	8
Moderator Journal	4
News from CLN Board	9
OLT Archives	3
OLT Funding Proposal	56
Region 1 Coordinators	1
Region 2 Coordinators	3
Region 3 Coordinators	5
Region 4 Coordinators	10
Region 5 Coordinators	17
Region 6 Coordinators	26
Region 7 Coordinators	1
Region 8 Coordinators	9

Regional Resource Network Committee	3
Regional Resource Persons	1

Appendix B

Survey Instrument

INTRODUCTION

You are invited to participate in a research study. The purpose of the study is to improve our understanding of how Community Adult Learning Council coordinators experienced the WebCT online learning environment called Community Learning Network Online, including what aspects they found helpful and what problems or barriers they encountered. This research is being conducted by Bette Gray in partial fulfillment of the requirements for the degree of Doctor of Education in the Department of Educational Policy Studies at the University of Alberta. The study is being funded in part by the Office of Learning Technologies, Human Resources Canada. Please read the information below and ask any questions you may have before agreeing to participate in the study.

PROCEDURES

If you agree to be in this study, your involvement will consist of completing an online questionnaire that will take approximately 20 minutes to complete. The first part of the questionnaire asks you to answer 16 multiple choice questions. The second part asks you to answer 7 open-ended questions about aspects of your online experience.

RISKS AND BENEFITS

There are no foreseeable risks associated with this study. The benefits of your participation will help us to better understand the experience of being part of an informal online learning environment. This may help organizations and adult educators develop more effective plans for implementing online learning outside of a formal education course. You will not receive any payment for participating. The research will be carried out as described and there is no deception involved. As a participant, you may access the completed study by borrowing a copy which will be provided to the Community Learning Network Board.

CONFIDENTIALITY

Participation in this study and the information gathered from the study will be kept confidential. No names of individual participants or any information that would identify you specifically will be released in any study discussion or publication. Data gathered from the study will be stored in a secure file. No cookies will be placed on a participant's computer. The results of the study will be included in the doctoral dissertation of the researcher, and will also be submitted in a report to the Office of Learning Technologies, Human Resources Canada. The findings of the study may be recorded in scholarly articles and submitted for publication in journals and conference proceedings related to adult learning and educational technology. In all cases, the data will be handled under the same ethical provisions as described in this document.

DECISION TO PARTICIPATE AND THE RIGHT TO WITHDRAW AT ANY TIME

Your participation in this research is entirely voluntary. You have the right to withdraw your consent or discontinue participation at any time without penalty. You have the right to refuse to answer particular questions. A decision not to complete the questionnaire will not affect any future relationship with the researcher, the Community Learning Network, or the Community Programs Branch of Alberta Learning.

CONTACTS AND QUESTIONS

The researcher will answer any further questions about the research, either now or during the course of the study. You can contact Bette Gray at (780) 963-4362 or bettegray@home.com If you have questions about your rights as a study participant or are dissatisfied at any time with any aspect of this study, you may contact the researcher's supervisor, Dr. Sue Scott at (780) 492-0551, sue.scott@ualberta.ca

CONSENT TO PARTICIPATE

By clicking on **I ACCEPT** below, you will signify that you have read the above information and have given your informed consent to participate in the study. You will then be taken to the website that contains the survey. You may save or print this information now if you wish to maintain a copy of the study description and your informed consent agreement.

By clicking on **I DO NOT ACCEPT** below you will signify that you do not accept the above terms and do not wish to fill out the questionnaire.

I ACCEPT the above terms and wish to fill out the questionnaire.
I DO NOT ACCEPT the above terms and do not wish to fill out the questionnaire.

INSTRUCTIONS FOR SURVEY

There are 16 multiple choice questions and 7 open-ended questions in this survey. Each question is followed by a Save Answer button, which must be pressed after answering each individual question. The Save Answer button may be pressed more than once if you wish to change your answer for a particular question. If you do not wish to answer a particular question, simply ignore it. On the right hand side of the screen, you will see a

table listing which questions have and have not been answered. A red bullet denotes that a particular question has not been answered yet, while a green bullet indicates that the question has been answered. When you have answered all the questions that you wish to, you must click the Finish button to submit the survey to have your results recorded for the research study.

Question 1

Within what age category do you belong?

1. 30 or under
2. 31-40
3. 41-50
4. 51-60
5. 61 or over

Question 2

What is your gender?

1. Female
2. Male

Question 3

What type of computer operating system do you use at work?

1. Microsoft Windows 95,98,NT,2000
2. Macintosh
3. Unix

Question 4

What type of Internet connection do you have at work?

1. Dialup modem (14.4K, 28.8K, 33.6K, 56K)
2. High speed direct connection (ISDN,DSL,ADSL,T1,cable)
3. Don't know

Question 5

Do you have an Internet connection at home?

1. Yes
2. No

Question 6

Using the categories below, how would you describe your computer experience?

1. Beginner
2. Fair
3. Good
4. Expert

Question 7

Using the categories below, how long have you been employed as an Adult Learning Council Coordinator?

1. Less than 1 year
2. 1-5 years
3. 6-10 years
4. 11-15 years
5. More than 15 years

Question 8

How many hours per week (excluding summer months) are you paid to be employed as an Adult Learning Council Coordinator?

1. 8 hours or less
2. 9-16 hours
3. 17-24 hours
4. 25-32 hours
5. 33-40 hours

Question 9

The village, town, or city in which your work office is located has a population of:

1. Under 5000
2. 5000-10,000
3. 10,001-20,000
4. 20,001-50,000
5. over 50,000

Question 10

Your highest level of formal education is:

1. High school graduation
2. Post-secondary diploma or certificate
3. Undergraduate university degree
4. Graduate university degree

Question 11

Using the categories below, how often did you log onto CLNOnline?

1. Usually every working day
2. At least once a week
3. Approximately once every two weeks
4. Approximately once a month
5. Less than once a month

Question 12

Did you ever access CLNOnline at a location other than in your work office?

1. Yes
2. No

Question 13

If you accessed CLNOnline at a location other than your work office, please indicate at which location(s). You may choose more than one answer.

1. My home
2. Home of a friend, neighbor, or family member
3. Another computer at work (other than my usual workstation)
4. Public library
5. School or post-secondary institution
6. Other location not listed here
7. I did not access CLNOnline except at work.

Question 14

Did you show CLNOnline or discuss it with others?

1. Yes
2. No

Question 15

If you showed CLNOnline or discussed it with others, please indicate with whom? You may select more than one answer.

1. Family
2. Co-workers
3. Friends or social acquaintances
4. Others not listed here
5. I did not show CLNOnline or discuss it with anyone

Question 16

Would you recommend that the Community Learning Network continue to sponsor CLNOnline?

1. Yes
2. No

Question 17

How was your experience with CLNOnline different than you had anticipated when you first heard about it?

Question 18

In what ways, if any, did CLNOnline help you in your job as an Adult Learning Council Coordinator?

Question 19

What barriers, if any, prevented you from participating in CLNOnline?

Question 20

Is there any aspect of CLNOnline that you found most helpful?

Question 21

In what ways, if any, has your experience with CLNOnline affected your views about using the Internet for communication and lifelong learning?

Question 22

What recommendations would you give to other groups who were thinking about establishing an online environment for informal learning and communication?

Question 23

Is there anything else you would like to tell us about your experience with CLNOnline?

Appendix C

E-Mail Invitation to Participate in Survey

Dear Council Coordinator,

As mentioned at the recent Community Learning Network conference in Calgary, I am currently conducting a research study to improve our understanding of how Community Adult Learning Council coordinators experienced the WebCT online environment called CLN Online. As someone who had access to this online environment during the past year, I am inviting you to participate in the online survey component of this research. Your involvement would consist of completing an online survey of 16 multiple choice questions and 7 open-ended questions, which would take approximately 20 minutes to complete. I would very much appreciate your participation in this survey, regardless of how frequently or infrequently you accessed CLN Online.

If you are willing to participate in the survey, please log on to CLN Online at https://webct.srv.ualberta.ca/SCRIPT/cln/scripts/serve_home and click on the blue CLNOnline Research Survey icon. The survey will close on April 27, 2001, so if you have time to participate within the next 3 weeks, your assistance would be greatly appreciated.

If you have any questions or concerns, please contact me by reply e-mail or by telephone at 780-963-4362. Thanks for your time.

Bette Gray

Appendix D

Follow-up E-Mail Invitation to Participate in Survey

Dear Council Coordinator,

I had e-mailed you earlier this month inviting you to participate in the research study which I am currently conducting to improve our understanding of how Community Adult Learning Council coordinators experienced the WebCT online environment called CLN Online. If you have already completed the survey, thanks very much for your participation. If you haven't completed the survey yet, you can still do so before April 27 by logging on to CLN Online at https://webct.srv.ualberta.ca/SCRIPT/cln/scripts/serve_home and clicking on the blue CLNOnline Research Survey icon.

I would very much appreciate your participation in this survey, regardless of how frequently or infrequently you accessed CLN Online. The survey consists of 16 multiple choice questions and 7 open-ended questions, which would take approximately 20 minutes to complete. If you have any questions or concerns about the survey, or encounter any technical problems, please contact me by reply e-mail or by telephone at
780-963-4362.

Thanks so much for your time and cooperation. Your participation will help us learn more about creating effective online learning environments for informal learning.

Bette Gray

Appendix E

Interview Guide

We're about to start an interview about your experiences with CLN Online. I want to remind you that you have the right to choose not to answer certain questions, and you can withdraw from the study at any time. Are you still willing to go ahead?

GENERAL

1. Please tell me about your personal experience with CLN Online.

PARTICIPATION

2. How did participating in CLN Online fit into your work schedule?
    - In a typical day or week, was there any pattern to when you would log on?
    - How frequently would you log on?
    - When you logged on, what did you usually do in a session? Probe: check mail/forums/calendar, etc.

3. When you logged on to CLNOnline, what were you hoping to find?
    - What would interest or intrigue you? What would disappoint you?
    - What did you think about when online?
    - Can you give an example?

4. What would motivate you to make a posting?
    - Can you give an example of when you made an original posting, or when you responded to a posting?
    - How did you feel when you made a posting, or read a response to your posting?

5. Why did you keep logging in (or stop logging in) over a period of time?
    - What kept you coming back?

6. How did this online environment differ from your other online experiences, such as regular e-mail, electronic listservs, or formal distance education courses you may have taken? Probe: give an example

Live chat (If applicable) – Tell me about your experiences with live chat.

RELATIONSHIPS/COMMUNITY

7. How important were your peers (other participants) in this online environment?
    - How well did you know most of the people who participated? How did your familiarity (or non-familiarity) with the other coordinators affect your experience?
    - Can you give an example/tell me more?

8. What thoughts do you have about the role of a moderator in this online environment?
    - What difference would it make if there were no moderator?
    - Can you give an example of how the moderator made an impact?

9. In what ways, if any, did you feel part of an online community?
    - Can you give me an example of what type of things made it feel like a community? One example when you felt like a community?
    - In your own words, what makes up a community?

WORK/LEARNING

10. What are some things you learned from this experience?
    - What, if anything, did you expect to learn?
    - Any computer skills, work-related issues?

METAPHOR

11. Sometimes metaphors help us to describe our experiences because a metaphor compares one thing to something else. What metaphor would you choose to describe your
experience of being part of CLN Online?

Could we take a minute here? I'd like to think about anything I might have missed and you can think of anything you might want to add.

DEMOGRAPHICS – Complete checklist

CLOSURE

Thanks very much. What will happen next is that I'll have this conversation transcribed, and I'll do some analysis to tease out some key themes that I think I heard. Then I'll send that to you and would like your feedback on whether I've captured things correctly. I'd like to be able to follow-up with a phone call, if that's okay with you.

1. What type of technical set-up do you have at work?

Dial-up Modem	
High Speed Access	
Windows (newer/older/power)	
Macintosh (newer/older/power)	
Technical/network support	

2. How many hours a week are you employed as a coordinator?

8 hours or less	
9-16 hours	
17-24 hours	
25-32 hours	
33-40 hours	

3. What size of population does your Council serve? Is it primarily rural or urban?

Under 5000	
5001-10,000	
10,0001-20,000	
20,0001-50,000	
Over 50,000	

4. In what age group do you belong?

30 or under	
31-40	
41-50	
51-60	
60 plus	

5. What is your highest level of formal education attained to date?

High school graduation	
Post-secondary diploma/certificate	
Undergraduate university degree	
Graduate university degree	
Other	

6. Computer experience

Length of time using computer	
Length of time using Internet	

7. How would you describe your computer experience level?

Beginner	
Fair	
Good	
Expert	

8. What type of technical set-up do you have at work?

Dial-up Modem	
High Speed Access	
Windows (newer/older/power)	

Macintosh (newer/older/power)	
Technical/network support	

9. Home use

Number of computers at home	
Internet access at home	
Other users at home/experience levels	

10. What previous experience have you had with online learning?

Appendix F

Categories for Online Postings

Category	Sample posting
Information seeking	We have been approached several times about offering the babysitting course in our community as no one is doing it any more. Our council has said no because we are 'adult learning'. However, I have noticed that some councils have this course in their booklet and that there has been some discussion about the CD Rom. How can we meet the needs in our community and still fit the adult learning mandate?
	How do the various councils handle the issue of council members taking courses? Do they pay full price? Do they take them free as a perk to sitting on council? We have some members who take courses paid for by the agency they work for and also sit on the council as an employee of that agency. One of them has asked for a reduced rate. On the other hand we have a very dedicated couple of volunteers who drive in from a rural area, do not charge mileage ever, and who willingly pay for their courses. Do any other councils have some kind of policy, formal or not that covers this one? Thanks.
Information giving	Have you considered the buddy system? Every student registered must be accompanies by an adult (over age 18). Once you have 8 adults you have a class. Adults can be parents of the students or prospective employers. One lady paid half the registration costs for three girls to take the course and she accompanied them so

she should always have a sitter. In a rural area someone has to drive the kids to class so you just need to make it easy for them to stay. Hope this helps.

Our council gives up to $30.00 off a course for council members (no limit to the amount per year). I add this amount as a revenue to our registration fees and charge it out as an expense to council member development. Our council feels that this is a very small benefit for all their work. This has never been abused and it applies to staff as well.

Formative/Social	What a great idea! It was so nice to hear what other people are doing. We had a 3 day family Christmas with 15 relatives from Edmonton Calgary and Toronto staying with us. It was busy, noisy and fun. The highlight was a Boxing Day guitar "Jam session" with the kids 12,13 &14 searching "Guitar Tabs" on the net for the chords and lyrics to all the 70's songs we thought we could remember but didn't. By the time they printed them out and we picked out the tune, everyone singing had moved onto another song. Talk about fractured lyrics. Have you ever read a book called "Excuse me while I Kiss this Guy"? We personified the book.

You guys are really making me so envious. Going to Europe and here I am sitting in ___________. On Monday my father-in-law fell and broke his hip (he's 82) so we've made a few trips to Edmonton. Have a great trip and we'll see everyone at the Spring Conference.

Appendix G

Informed Consent for WebCT Postings

Dear ____________________________,

I am currently conducting a research study to improve our understanding of how Community Adult Learning Council coordinators experienced the WebCT online learning environment called Community Learning Network Online (CLN Online), including what aspects they found helpful and what problems or barriers they encountered. I am conducting this research in partial fulfillment of the requirements for the degree of Doctor of Education in the Department of Educational Policy Studies at the University of Alberta. The study is being funded in part by the Office of Learning Technologies, Human Resources Canada. I am inviting you to participate in the study because of your involvement in CLN Online in its initial year of implementation. Please read the information below and ask any questions you may have before agreeing to participate.

Part of the study will involve reviewing the postings made by participants in the discussion forums in CLN Online at
https://webct.srv.ualberta.ca/SCRIPT/cln/scripts/serve_home
from May 1,2000 – April 1, 2001. As a researcher, I will be looking for themes and patterns in the postings to help us understand the nature of the conversations, questions, and interactions between participants. If you agree to participate in this study, you will be giving your informed consent to include any postings you may have made in this transcript analysis. In any study discussion or publication, your name will not be connected to any posting, and no information that would identify you specifically will be released. The results of the study will be included in my doctoral dissertation, and will also be submitted in a report to the

Office of Learning Technologies, Human Resources Canada. The findings of the study may be recorded in scholarly articles and submitted for publication in journals and conference proceedings related to adult learning and educational technology. In all cases, the data will be handled under the same ethical provisions as described in this letter.

Your participation in this research is entirely voluntary. You have the right to withdraw your consent at any time without penalty, and I will remind you from time to time of this right. If you choose to withdraw your consent at any time, all data that can be directly attributed to you will be removed from the study. A decision not to give your consent to use your postings in the study will not affect any future relationship with the researcher, the Community Learning Network, or the Community Programs Branch of Alberta Learning.

There are no foreseeable risks associated with this study. The benefits of your participation will help us to better understand the experience of being part of an informal online learning environment. This may help organizations and adult educators develop more effective plans for implementing online learning outside of a formal education course. You will not receive any payment for participating. The research will be carried out as described and there is no deception involved. As a participant, you may access the completed study by borrowing a copy which will be provided to the Community Learning Network Board.

If you have any further questions about the research, either now or during the course of the study, please contact me at (780) 963-4362 or bettegray@home.com If you have questions about your rights as a study participant or are dissatisfied at any time with any aspect of this study, you may contact my research supervisor, Dr. Sue Scott at (780) 492-0551, sue.scott@ualberta.ca

If, after having read and understood the above information, you wish to give your informed consent to include your postings in the transcript analysis, please send an e-mail reply to this message to bettegray@home.com with the following message:

I have understood to my satisfaction the information regarding my participation in this research study. I give my informed consent to include in the research study all postings I may have made to CLNOnline at https://webct.srv.ualberta.ca/SCRIPT/cln/scripts/serve_home between May 1, 2000 and April 1, 2001.

Your Name:
Address:
Daytime Telephone:
Date:

Thank you for your time. Your contribution to this project is very much appreciated.

Sincerely,
Bette Gray

Appendix H

Informed Consent for Interviews

Dear ___________________________,

I am currently conducting a research study to improve our understanding of how Community Adult Learning Council coordinators experienced the WebCT online learning environment called Community Learning Network Online (CLN Online). I am conducting this research in partial fulfillment of the requirements for the degree of Doctor of Education in the Department of Educational Policy Studies at the University of Alberta. The study is being funded in part by the Office of Learning Technologies, Human Resources Canada. The research will be carried out as described in this letter, and there is no deception involved.

I am inviting you to participate in the study because of your involvement in CLN Online in its initial year of implementation. Please read the information below and ask any questions you may have before agreeing to participate.

Your involvement in this study would consist of taking part in an interview to discuss your experience using CLN Online. The interview would be conducted with me either in your work location or by telephone, would take approximately 45 minutes and would be tape-recorded. Prior to the interview I would e-mail you a guideline of the interview topics. Following the interview, I would e-mail you a copy of the themes which emerged from the interview, and I would follow up with you by telephone or e-mail to confirm that I have represented your understanding of the interview and to invite you to add any additional information, observations or reflections.

Participation in this study and the information gathered from the study will be kept confidential. No names of individual participants or any other information that would specifically identify you will be released in any study discussion or publication. Data gathered from the study will be stored in a secure file. Any transcribers or research assistants who may have access to the data will have signed a confidentiality agreement, and all participant data will be assigned a pseudonym. The results of the study will be included in my doctoral dissertation, and will also be submitted in a report to the Office of Learning Technologies, Human Resources Canada. The findings of the study may be recorded in scholarly articles and submitted for publication in journals and conference proceedings related to adult learning and educational technology. In all cases, the data will be handled under the same ethical provisions as described in this letter

Your participation in this research is entirely voluntary. You have the right to withdraw your consent or to discontinue participation at any time without penalty, and I will remind you from time to time of this right. If you choose to discontinue or withdraw your consent at any time, all data that can be directly attributed to you will be removed from the study. You have the right to refuse to answer particular questions. A decision not to participate in the study will not affect any future relationship with the researcher, the Community Learning Network, or the Community Programs Branch of Alberta Learning.

There are no foreseeable risks associated with this study. The benefits of your participation will help us to better understand the experience of being part of an informal online learning environment. This may help organizations and adult educators develop more effective plans for implementing online learning outside of a formal education course. You will not receive any payment for participating. As a participant, you may access the completed study by borrowing a copy which will be provided to the Community Learning Network Board.

If you have any further questions about the research, either now or during the course of the study, please contact me at (780) 963-4362 or bettegray@home.com If you have questions about your rights as a study participant or are dissatisfied at any time with any aspect of this study, you may contact my research supervisor, Dr. Sue Scott at (780) 492-0551, sue.scott@ualberta.ca

If, after having read and understood the above information, you wish to give your informed consent to participate in the study, please send an e-mail reply to this message to bettegray@home.com with the following message:

I have understood to my satisfaction the information regarding my participation in this research study, and I hereby give my informed consent to participate.

Your Name:
Address:
Daytime Telephone:
Date:

Thank you for your time. Your contribution to this project is very much appreciated.

Sincerely,
Bette Gray

Appendix I

Excerpt from Live Chat

Moderator: How do you provide evidence of value added contributions of your Council in your reporting?

Moldy-Oldie #1: I usually include a lot of qualitative stuff as extra materials

Moldy-Oldie #2: I don't think that gets portrayed in the document. We do so much in the community that is hard to document.

Moldy-Oldie #3: You know what? That can be very difficult because so much of what I do is hard to measure. Council/Coordinator influence on community development for example is crucial and important.

Moderator: I'm thinking of the purpose and audience for the annual report. What is the purpose, and who is the audience?

Moldy-Oldie #3: Do you think there is much of an audience?

Newbie #1: You mean there really is one. I thought it was just a make work project for us

Newbie #2: I guess the purpose is accountability and the audience is Alberta Learning.

Moldy-Oldie #4: I try to include success stories, but that doesn't even scratch the surface. I really don't feel this comes through in the Department's reporting, but perhaps is helps to influence funding.

Moldy-Oldie #3: Funding hasn't changed in years. Maybe it's just keeping what we've got.

Moldy-Oldie #1: Apparently nothing influences funding except history

Moderator: Is the purpose accountability as well as continuous improvement? Does your Council "use" the annual report in any way?

Moldy-Oldie #1: Not really, we monitor as we go. It's history to us.

Newbie #1: No. I don't think anyone even looks at it. I bring it to our annual meeting, but it sits in the middle of the table

Moderator: So am I hearing that the purpose is accountability to Alberta Learning for use of public funds?

Moldy-Oldie #2: I think so

Moldy-Oldie #1: We set the budget and set our goal and monitor as we go

Newbie #1: Couldn't that be a one page financial statement?

Moderator: Interesting, ______- perhaps this is where the discussion could begin with Alberta learning

Moldy-Oldie #3: The business plan does get referred to during the year.

As well, I like to see where we are at financially, and what we have been able to accomplish on such a wee bit of seed money.

Newbie #1: And both of them several pages long!

Moderator: In your minds, which of the two entities is most helpful for you and your council?

Moldy-Oldie #1: Our DHA the School Board is interested in our Annual Report and our plan,

Moldy-Oldie #2: Financial statements do provide a form of accountability but I wonder how we can measure the things we do that don't involve money.

Moldy-Oldie #3: I agree that the process could be much shorter. Stats and dollars, plus a bit about successes and plans for the next year. The reporting on objectives and results for Rural Access and Learning Centre was painful and time consuming.

Moderator: With qualitative, I find that a few stories speak a thousand words...

Moldy-Oldie #3: I do a verbal report for my council (4 to 5 pages) summarizing all of the things we have done throughout the year. We find that very useful, and it makes us feel good to see what we have accomplished, but it is not a measurable tool.

Moldy-Oldie #2: The trouble with stories is that it takes time to read them and I wonder if the "decision makers" have the time?

Moldy-Oldie #1: Like I said I submitted a small book, and a lot of the things I reported on in I tried to show the broad range of other activities we influenced in some way, often small, but significant

Moderator: However we seem to feel here that the reports don't affect decisions of funding anyway?

Newbie #1: I suspect that they mainly look at the financial reports more so than anything.

Moldy-Oldie #2: Yep

Moldy-Oldie #3: And the stats